The American Artisan
And Hardware Record

Vol. 51. No. 14. CHICAGO, APRIL 7, 1906. $2.00 Per Year.

COLUMBUS BOLT WORKS,
COLUMBUS, OHIO.
Bolts, Rivets, Nuts, Washers, Carriage Forgings, Etc.
CATALOG AND PRICES ON APPLICATION.

The Sun Always Shines
Upon the house where
"American Seal" Elastic Oil Cement
has been used
Strengthens Weak Spots and Stops Leaks

The Wm. Connors Paint Mfg. Company
Troy, N. Y.

THE PRICE IS RIGHT!
For bedding slate and tile Roofs — The best to be had

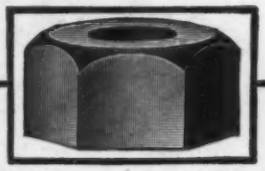
TRYING to do business without advertising is like winking at a girl in the dark: you know what you are doing but nobody else does.

THE WIZARD
ADJUSTIBLE FLEXIBLE HANGER

NO Special Track Required.

Lateral or Vertical Adjustment
Swing Out and Stay On Features
and door may be placed as close to building as desired.
Each pair packed in individual box, complete with bolts and nuts.

See your jobber or write us.
SAFETY DOOR HANGER CO.,
Ashland, Ohio Hamilton, Ont.



COLD PUNCHED
NUTS

HIGH GRADE
GOOD LOOKING
ACCURATE

SEMI-FINISHED
NUTS

Garland Nut & Rivet Co.
PITTSBURGH, PA.

BLACK DIAMOND FILES and RASPS

TRADE MARK
PERFECT—ALWAYS

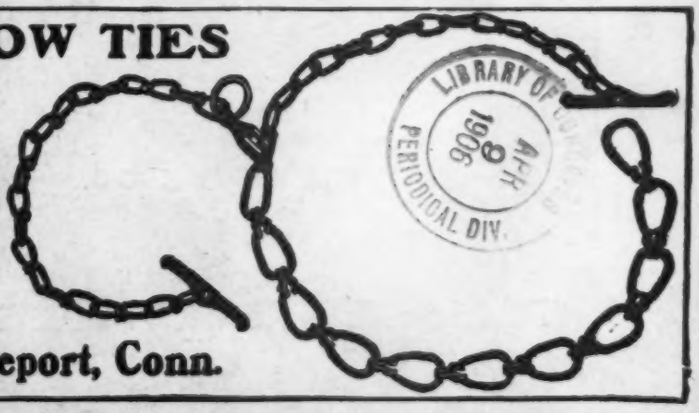
Twelve Medals Awarded at International Expositions
Copy of Catalogue will be sent free to any interested file user upon application

G. & H. BARNETT COMPANY
Black Diamond File Works PHILADELPHIA

BROWN WELDLESS COW TIES
Twice as strong as welded chain.

A sample (full length) delivered for **one cent.**
Any Retail Dealer sending postal card request with name of Jobber secures sample prepaid.

Sole Manufacturers
The Bridgeport Chain Co., Bridgeport, Conn.



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PERIODICAL DIV.

The Gas Heater Sensation of the Year.

"Fort Pitt" Gas Heaters

A strictly high grade "Tony" line. Built like the Heaters for which you have been paying $10 to $15 The only difference is they are smaller and their price is not quite half as much.

No. 19 Fort Pitt

3 Styles

CAST IRON FIRE BOXES

FINE NICKEL

FLUE CONNECTIONS

LARGE CIRCULATING FLUES

No. 12 Fort Pitt

Just what People have been looking for. You will find them a Low Priced Hard Hitting Line.

Pittsburgh Stove & Range Co.

Pittsburgh, Pa.

WHY THE B. & B. SELLS ITSELF

The **B. & B. Wickless Oil Cook** appeals at once to the average housekeeper as a common sense stove. She likes the simplicity of the burner construction which enables her to take it all apart for cleaning. She understands that if an oil passage stops up it is the work of only two or three minutes to put it in perfect working order again.

She likes, too, the security as to perfect construction which is guaranteed by our three distinct tests This very unusual care on our part makes her feel that the B. & B. trade-mark really means all it says, "Brightest and Best." Is it hard to clinch a sale with a customer in this frame of mind? If you are skeptical, try it.

The B. & B. letter of explanation, which is sent in reply to all inquiries, gives a complete explanation of our stoves and methods of manufacture. A postal bearing your address will bring it on the first mail.

GLAZIER STOVE CO.

Chelsea, Mich.

Chicago Agent, W. D. SAGER, 38 Michigan St.

"B. & B." SPECIAL CABINET LINE

The new line of Wickless Oil Cooks, which we partially introduced last season and have completed for the present season, is an exceedingly attractive one to the purchaser of moderate means. The frames are entirely enclosed on the ends and back in the cabinet style; they are without the elaborate ornamentation of our "Regular Cabinet Line," but they are neat and attractive, and will prove an ornament in any kitchen. The burners of these stoves have not been cheapened in any particular.

Art St. Clair Base Burner

13 inch, 15 inch and 17 inch sizes

A strictly high-grade double-heating base burner, of new and elegant design, with large self-feed attachment.
Ornamentation is highly artistic.
Powerful double-heating attachment.
Massive in appearance and durable.
Large removable deflector top.
Gas tight automatic cover over magazine.
Improved duplex grate, with shaking ring.

Roomy Tea Kettle Attachment
Large Square Bailed Ash Pan

Mica lights extending the full length of the fire chamber, with large deflectors on all three sides. Removable heavy fire-pot through front lower mica door frame. Brass nuts at all places that are liable to be replaced or removed at any time.

Nickeled parts are copperized first and highly polished and nickeled on copper, which insures highest finish and durable nickeling. Mounting is tight and perfect in every respect.

Belleville Stove & Range Co.

BELLEVILLE, ILLINOIS

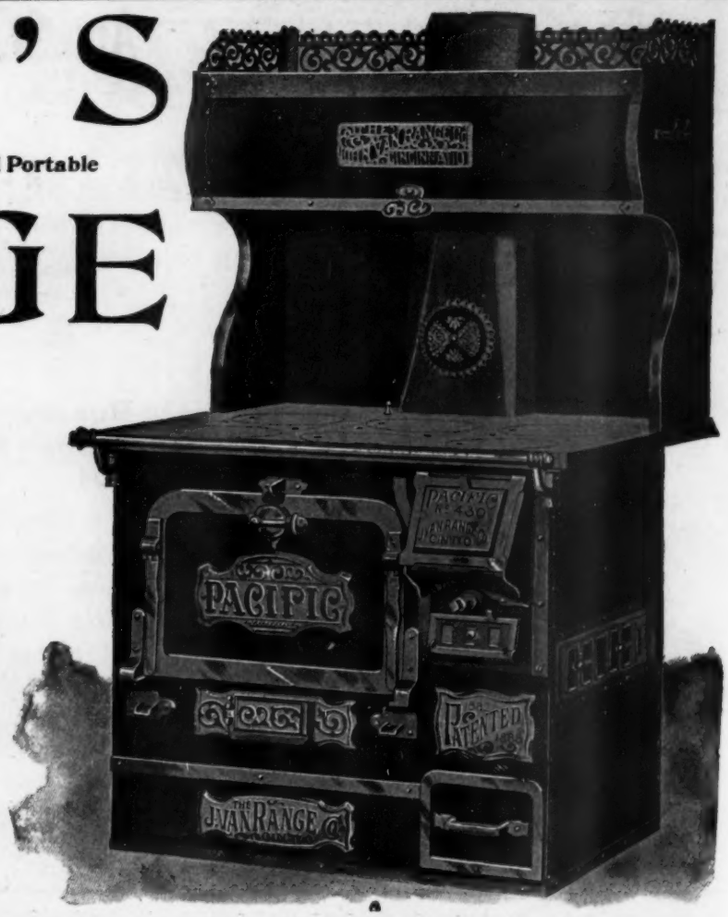
Write for our latest catalogue

Malleable St. Clair Steel Range

16 inch and 18 inch ovens.
Polished Steel Bodies.
Sectional Top Plates.
Polished Tops.
Highly Nickeled.
Can furnish any combination desired.
Strictly High Grade in every respect.

VAN'S RANGE

Patent Improved Wrought Steel Portable



For Hotels, Restaurants. Public Institutions, Boarding Houses, and Private Families. All kinds of Hotel Implements for culinary purposes. Manufactured and for sale by

The John Van Range Company

Southwest Corner
5th and Broadway

CINCINNATI, - - - - - OHIO

Schill's Ideal

We don't advocate frequent changes in base of supplies, but we do advocate hitching up to a firm that keeps abreast of the times—a firm that takes the trouble to make new patterns and thinks up new ideas. The **IDEAL** is only one example of our progressiveness but it's a good one. This newest of cast ranges is ahead of the times in almost every particular. It's the 1906 cooking stove. There's none better made and you can take our word for it.

We haven't room to explain but our booklet's ready.

The Schill Brothers Company, CRESTLINE, OHIO

Oaks, Furnaces, Steel Ranges, Steel Cooks, Etc.

YOU CANNOT MAKE A MISTAKE

If you buy the justly celebrated

Peoria Lexington Steel Ranges

15, 17, 19 and 21 inch Oven.

The Acme of Perfection in

Family Steel Ranges

MADE OF

Best Anti-Rust Planished Steel.

Best grades of Pig Iron.
Perfect Baker and Fuel Savers.
Very Attractive in Appearance.

Sure Trade Winners

Culter & Proctor Stove Co.

PEORIA ILLINOIS

HAMMOND

Dust Proof Furnace

Designed for Perfect Heating and Ventilating.

PROVIDES COMFORT

AND

INSURES HYGIENIC CONDITIONS

With it's Winged Firepot giving immense radiation, and with all dust eliminated, its healthful and economical features cannot be overlooked.

UP-TO-DATE

and built on most modern principles, by

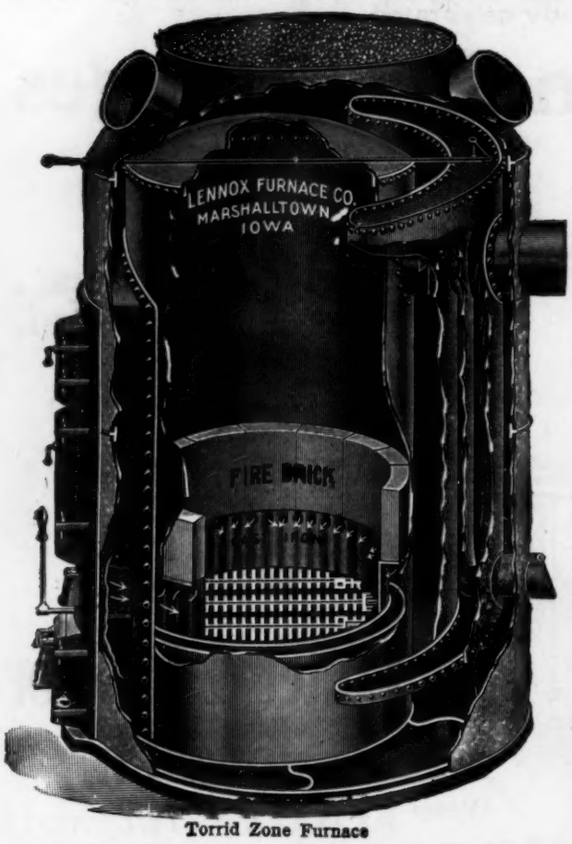
Peck-Hammond Co.

HEATING AND VENTILATING ENGINEERS

125 E. PEARL STREET

CINCINNATI, O

A Steel Furnace is the Coming Furnace



Torrid Zone Furnace

It is the only absolutely gas-tight furnace that can be made, as has been demonstrated by the Torrid Zone made by the Lennox Furnace Co. Which company now has the largest factory in the world for making steel furnaces.

The Lennox Company is the pioneer steel furnace company. It has created the demand with the Torrid Zone for steel furnaces now felt by so many manufacturers of cast furnaces that all sorts of makeshifts are attempted to satisfy it. Steel furnaces in fifteen sizes are the only furnaces the Lennox company ever makes and they are made of such heavy steel, on such scientific principles, so simple to manage and easy to set that the growth of their sales has been something marvelous.

The Torrid Zone has many special, individual features which make it an easy furnace to sell at a fair price over all competition, because it is entirely different from and much better than other furnaces. The company assists its dealer with many helpful aids in selling. Its old dealers will always gladly testify as to their success with Lennox Torrid Zone furnaces.

Write for 40-page Catalog

The Lennox Furnace Co.

Marshalltown, Iowa.

TRIUMPH
HOT AIR FURNACES

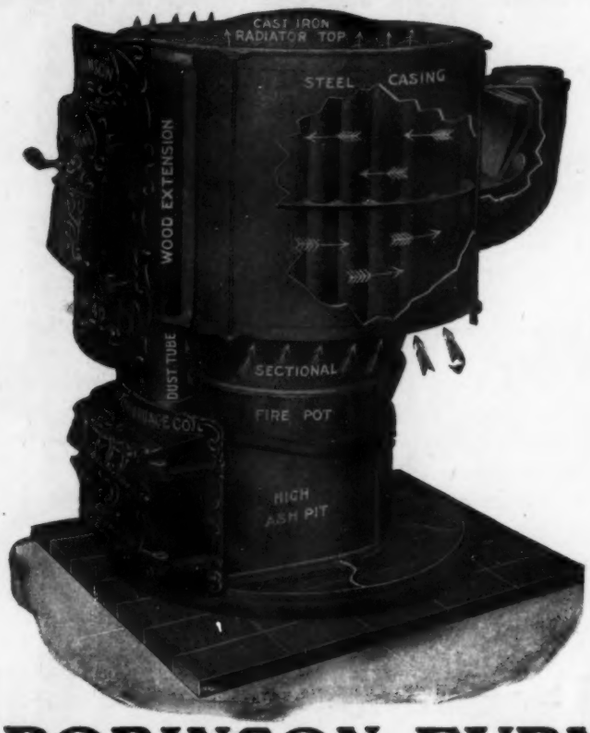
Are Made in
MANY STYLES
and in
MANY SIZES

JOHN KONTNY, Western Agent
65-67 N. Desplaines St., CHICAGO

THE CRAIG-REYNOLDS FDY. CO.
DAYTON, OHIO

Mfrs. Triumph Furnaces, Triumph Hot Water and Triumph Steam Heaters

Robinson Tubular



Warm Air Furnaces

for heating dwellings, churches and stores are becoming more popular each year.

Robinson Tubular

is responsible more than anything else for this increased popularity.

Robinson Tubular

is known and liked wherever the science of furnace heating is pursued. This is due to its substantial construction, large radiating surface, long fire travel. It gives the largest amount of heat with the smallest amount of fuel.

Have you seen our new catalog?

ROBINSON FURNACE COMPANY
107-109 LAKE STREET, CHICAGO

A DIFFERENT Principle

The KELSEY Generator is entirely different from any warm air furnace.

It is different in construction, and does its work on a different principle.

It forces the pure, fresh air up through corrugated cast iron flues.

The fresh air can't *rush* up through these flues. It must pass up through them gradually, and be thoroughly warmed, but not scorched.

That is where the KELSEY is a far better than the ordinary furnace, which warms the air without any regularity.

And in the KELSEY the warm air can be forced to any part of the building, regardless of location, distance from the Generator, or exposure.

We would like to send you our booklets, "All About the KELSEY," and "What the Users Say."

You'll find these booklets highly interesting.

Gladly mailed, with our Agency Proposition, on request.

"There is only ONE Warm Air Generator!"

Kelsey Heating Co., Syracuse, N. Y.

New York City, 156 FIFTH AVENUE
Philadelphia: Builders Exchange, 24 South 7th Street.
JAMES SMART MFG. CO., Brockville, Ont.
Sole Makers for Canada.

Western Sales Agents:
COOK & VAN EVERA COMPANY
38 East Lake Street, CHICAGO

Keep Out of the Line of Competition

An old and successful stove man says:—"My motto has been "NOTHING TOO GOOD FOR MY TRADE."
When a dealer thinks ANYTHING is good enough for his trade he is not far wrong, for he has no trade worth having."

The Great Retort Line

is strictly FIRST CLASS in every particular.

With its

9 STYLES—and—42 NUMBERS

the dealer has a greater variety of specialties to choose from than can be found in any other line.

We give EXCLUSIVE AGENCIES

and are in a position to protect our customers in their territory.
Write us and ask for catalog and prices, and we will arrange to have our travelers see you before placing your orders for your fall stock.

MARION STOVE CO.

MARION, INDIANA

WE BELIEVE THAT ANY MERCHANT will make more money and have better satisfied customers by selling the best MADE GOODS he can buy, especially if the best do not cost a great deal, if any more, than an inferior make.

For over thirty years we have been making the NOVELTY Force Pump. Suitable for wells or cisterns. A few of our competitors have attempted to imitate the handle of the Novelty, but none of these imitations work as perfectly as the Novelty.

Every part of the NOVELTY is interchangeable.

All cylinders are HEAVY SEAMLESS BRASS.

The base of our Well Pump is adjustable, and patented Handle is wood and adjustable.

For Strength, Durability and ease of operation, the NOVELTY leads all other makes.

No. 13. House Pump.

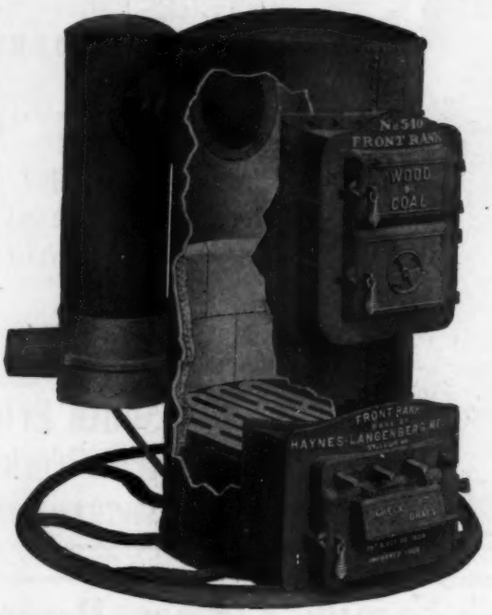
Novelty 3-Way Valve. Can be attached to any make pump. Having iron pipe.

No. 19. Bucket Spray Pump we also make spray pumps to be used with tanks or barrels

THE HESS-SNYDER COMPANY, Manufacturers, Massillon, Ohio

Catalogue and prices mailed upon request

FRONT RANK STEEL FURNACES



are the peer of all Steel Heaters

NO DEALER SHOULD BE WITHOUT THEM

Front Rank Furnaces have been on the market for nearly twenty years, and at present, are being sold in every State in the Union where furnaces are used. **We guarantee them** to burn hard or soft coal, wood or coke, besides which **Any Hot-Water** combination can be used in the **Front Rank**

Write for Our 1906 Catalogue.

Handsomely illustrated—containing pertinent and pithy furnace facts.

HAYNES-LANGENBERG MFG. CO.

ST. LOUIS, MO.

BOYNTON

Oldest firm in the business with goods up-to-date—Best on the market

FURNACES

All Kinds

Made of Cast or Wrought Iron or both.

Portable or Brick Set

Best | **Known Made Assortment Terms Seller**

Send for Catalogue on Heaters and Furnaces.

The Boynton Furnace Company

147-149 Lake St., CHICAGO 207-209 Water St., NEW YORK

Reduce Selling Expense

All dealers are anxious to reduce cost af selling their goods—because the time used means money spent.

This expense is always important.

We know that you can sell "THATCHER" Goods with less effort—less expense—and with more satisfaction to yourself and owner—than any other goods.

There's a reason—Reputation—56 years—used everywhere—with the highest satisfaction.

Don't put this off until to-morrow. Write us to-day for full particulars. It will pay you.

Thatcher Furnace Co.,

110-112-114-116 Beekman Street
NEW YORK

B RUBY

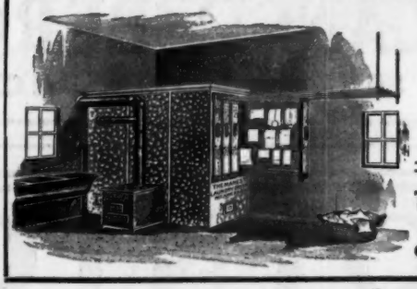
FOUR HOLE RANGE FOR Hard Coal, Soft Coal or Wood.

A STOVE OF INTEREST TO **PROGRESSIVE DEALERS**

YOU'LL NOT REGRET SENDING FOR OUR CATALOGUE.

South Erie Iron Works
SOUTH ERIE, PA.

The "Manest" Family Clothes Dryer

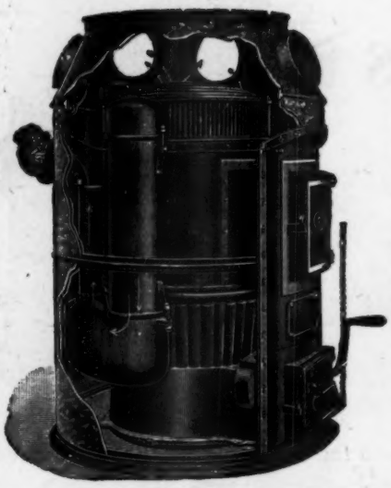


A Laundry Stove and Drying Cabinet Combined.

One fire boils the clothes, dries the clothes and heats the irons. Good profits to agents.

THE MANNEN & ESTERLY COMPANY
Successors to MANNEN & ESTERLY
CLEVELAND, OHIO

FLORAL CITY FURNACES



are as easily managed as an ordinary stove.

They will **burn Hard Coal, Soft Coal and Wood Equally Well.**

Our Furnaces are recognized as the **most reliable** on the market.

No Dealer Should be Without Them.

Send for our latest CATALOGUE

MONROE FOUNDRY & FURNACE CO.
MONROE :: :: :: MICHIGAN

HERO FURNACES

Our furnaces are justly called "HERO." They are made of the very best material, are never falsely represented, and have a reputation built up by SATISFIED USERS.

SEND FOR OUR CATALOGUE

Charles Smith Co.

101 Lake Street, Chicago

THE NEW

LION FURNACE

Now Ready for the Trade

Can Use Hard or Soft Coal

Simple in Construction

and a Successful Heater.

Our Catalogue gives you full information.

Write for it TO-DAY

YOUNGSTOWN FURNACE & SUPPLY COMPANY

YOUNGSTOWN, OHIO

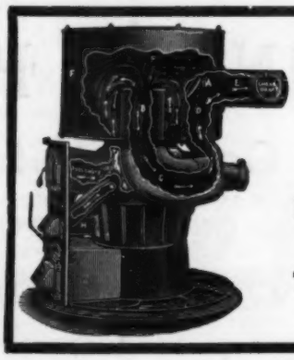
Address all western inquiries to our Western Distributors, COOK & VAN EVERA, 38-40 Lake Street, Chicago.

THE "X.L.O." WARM AIR FURNACES

are heavy, plain and effective. No "clean outs." Grate and Radiating surface large. Been under severe test 5 years. Catalog explains all about it. Write us. Special prices for 1905.

The Wellsburg Heating & Foundry Co.,

Wellsburg, W. Va.



Perfect Blast Device

Clinker Punch
Big Tubular Radiator
Secondary Radiator
Burns Soft Coal or Gas and can be changed quickly

THE BONNOT COMPANY, Canton, Ohio

Makers of GOOD Furnaces

Acme Ovens, Hot Plates

Cookers and Ranges

FOR ALL GASES

CATALOGUE No. 43 JUST OUT YOURS FOR THE ASKING

H. ADLER CO., Makers

Carnegie, Pa.

WESTERN OFFICE AND WAREHOUSE:
1210 W. 10th St., KANSAS CITY, MO.

Here's a Snap for Wide-Awake Range Dealers

I am going to sell 1,000 400 lb. six hole steel ranges finished in Japan for

$15.00 Each

just to keep my boys busy and foundry running full blast. I'll sell the ranges too, so you'd better get in line and ORDER NOW.

These ranges formerly retailed at $60 each. Send me a carload order and get my best cash discount or I'll give dating to firms with satisfactory credit. What better proposition can you ask for, if you have a little capital, are sufficiently enterprising, and want to make money?

DO YOU KNOW there is a big demand for the "Willard" Steel Ranges because they give perfect satisfaction, and don't cost too much? Then why don't you supply them? I would much rather sell to a good hustling dealer than direct to the consumer.

WILLARD STEEL RANGES

are advertised in many leading publications, and the people know them and want them. Get my prices—it means profits—DOLLARS—to you. Every sale leads to another I can sell you a better range than you can buy ANYWHERE for the money, one that cooks well and bakes evenly and perfectly, and will last a lifetime, with proper care. Tell me how many ranges you can sell annually and I will make you a very interesting proposition.

AGENTS WANTED.

WM. G. WILLARD, Room No. 28 Willard Bldg., 316 CHESTNUT STREET, ST. LOUIS, MO.

Champion and Marquart IMPROVED STEEL RANGES

Are universal favorites because they save time and strength.

Our Ranges Save Fuel

and are unsurpassed as regards simplicity, economy and workmanship.

Send for our Catalogue.

Champion Steel Range Co.

CLEVELAND, OHIO

100 TINNERS' PATTERNS

Complete for $1.00.

SENT POSTPAID ON RECEIPT OF PRICE

DANIEL STERN, 69 Dearborn Street, CHICAGO

REGISTERS : FACES . BORDERS

in every conceivable style, shape, design and material, made by

THE FERROSTEEL CO., Cleveland, Ohio

FERROSTEEL CAST—Mechanism and Finish Perfect, Designs Artistic and Attractive.

FERROSTEEL MODIFIED STEEL—Face Cast, Bottom Wrought Steel, Air Capacity Large, Designs all Styles.

FERROSTEEL WROUGHT STEEL—The most rigid made. Air Capacity greater than all Other Plain Lattice Wrought Steel Goods.

New Catalogue Just Out—FREE. Prices Rock Bottom. Our Record is Our ☞

Persistent Superiority
Persistent Superiority
Persistent Superiority
Persistent Superiority
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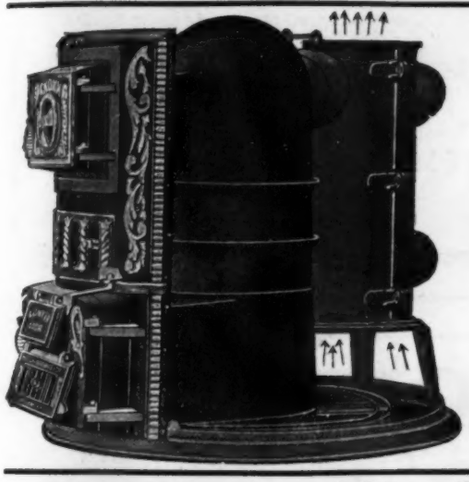
Persistent Superiority



The "Low Down" Crown Furnace

Is an Assurance of SOLID COMFORT

It is the furnace that exposes the greatest heating surface, a minimum of coal energy and requires the least attention. Dealers like the **"Low Down"** Crown Furnaces because they

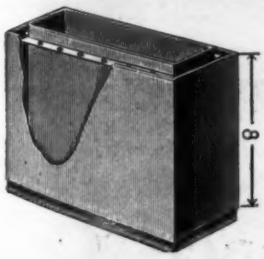
ARE ALWAYS GOOD SELLERS

It is scientific throughout and anyone will understand its construction by reading through our Catalogue

Write us for one

MARCH-BROWNBACK STOVE CO.

POTTSTOWN, PA.



The Michigan Safety Furnace Pipe Company

Corner Brooklyn and Abbott Sts.

DETROIT, MICHIGAN

Manufacturers of Safety Wall Pipe, and Single Pipe and Fittings, in both tin and galvanized iron.

Send for our 1906 Catalogue. **Our new factory insures you prompt delivery.**

We belong to no combination. **Don't get our name confused with other manufacturers.**

MONCRIEF

Warm Air Furnaces

Combine SIMPLICITY, DURABILITY, ECONOMY and CLEANLINESS IN USE

SPECIALTIES
- All Cast Iron
- Moncrief Duplex Grate
- Large Radiating Surface
- Top Return Flue
- Double Fire Pot
- Large Grate Surface

HENRY & SCHEIBLE CO.

6-8-10 Long Street, CLEVELAND, O.

Sales Agent—J. C. KIMMEL, 3314 East 15th Street, Kansas City, Missouri

Independent Deflecting Wall Registers

Low in Price
Standard in size
Right!

Independent Register Co.
Cleveland, O.

THERMOSTATS

SPRAGUE DAMPER & VALVE REGULATORS Non-Electric.

10 years in use. Thousands giving satisfaction; they are guaranteed; also Sprague Electrics, and automatic checks for Steam, Hot Water and Hot Air Heaters of all kinds.

HOWARD THERMO. CO., - West, Oswego, N. Y.

Refer to the **Buyer's Directory**

MUELLER FURNACES

are not made with a view of meeting competition (considering price only), but are made on scientific and practical principles, possessing the important requisites of DURABILITY, POWER and ECONOMY.

Dealers don't have to meet figures made by their competitors on inferior heaters, but on nine out of ten furnace jobs can secure a material preference if they install MUELLER furnaces.

Then why not secure the agency of the well known line of heaters.

Get our prices on wall and floor registers.

L. J. Mueller Furnace Company

191 REED STREET -:- · -:- -:- MILWAUKEE, WIS.

Fools

Pay dearly for their experience. They spend their time, money and energy going at things blindly. Before buying furnaces, the experienced read the catalog of

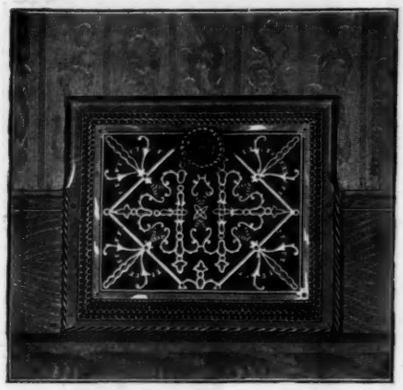
The Wise Furnaces

and find out what constitutes a good heating system. There are several unique features in those

Manufactured by

The Wise Furnace Co.

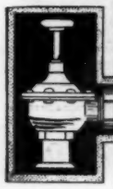
Good Sellers **Akron, Ohio** **See their catalog**



THE SCHWAB SIDE WALL REGISTER

THE SCHWAB SIDE WALL REGISTER AND REGISTER BOX, NEATEST IN DESIGN, NOISELESS IN OPERATION, SUBSTANTIAL IN CONSTRUCTION, A FACTOR IN MODERN METHODS OF HEATING RESIDENCES FULLY ILLUSTRATED IN OUR REGISTER CATALOGUE. SENT FREE ON APPLICATION.

R. J. SCHWAB & SONS CO., The Furnace Men Milwaukee, Wis.



Vacuum Heating

POST YOUR SELF MARVELOUS FUEL SAVING

Write for New Catalogues, full particulars and prices

the system of the future

Kellogg-Mackay-Cameron Co. SOLE OWNERS

CHICAGO MINNEAPOLIS KANSAS CITY SEATTLE

MORGAN PATENTS

L. SHIREMAN,

Springfield, O., writes:

"I answered an advertisement I saw in THE AMERICAN ARTISAN and got a good job. I can't do without your paper."

THE GILT EDGE RADIUM

has been studied out with a view to **practicability** and **comfort** in every detail.

The air entering at the front in the **Gilt Edge Radium** is controlled so as to give greatest **Uniformity of Heat in the Fire-Pot.**

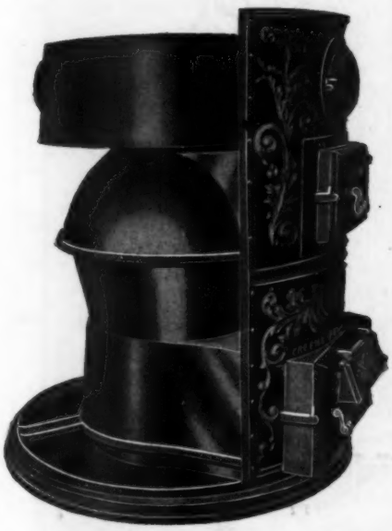
Greater efficiency cannot be found in any other "Horse-Shoe" Furnace.

See Our Catalogue

R. J. Schwab & Sons Co.

. . THE FURNACE MEN . .

MILWAUKEE, WISCONSIN



SPECIALTIES

are easy to sell and we manufacture a complete line. Six styles in all. Individual opinions differ as to the best construction for fire resistance, but no matter which style you sell, it is a Green Furnace and up to the Green Standard of material and workmanship. Our prices may surprise you.

Write us for Catalogue and Discount

GREEN FOUNDRY & FURNACE WORKS

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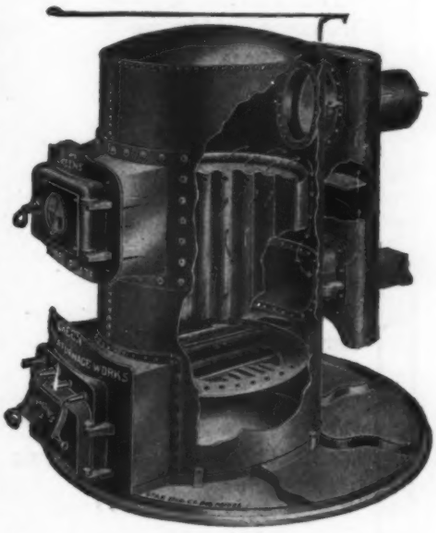

A. C. BECKER, Osceola, Iowa,

Writes:

"I became a regular subscriber to THE AMERICAN ARTISAN when I entered the hardware field. I have remained one ever since. For me, it is the most interesting, the most instructive and necessary paper published No novice should start a hardware business without it. Without it, no veteran can hope to be a success."

ROUND OAK
Standard of America

Some merchants
are always figuring
to get a little
the most of the
business going
in their territory,
and some merchants seem
unable to do anything
but stand by
and let them do it.
The latter is not the man
we are after.
We say it frankly, we
want to get in
with the "live one"
who knows that an
enthusiastic push on a
good specialty that cannot
be equalled in price and quality
helps his store and every
line he handles.
The merchant who is always
looking for a chance to "start
something" will take to the
Round Oak Chief Steel Range—
he simply cannot help himself.
We hope this will hit his eye
and that he will promptly tell us
to send full information.

ESTATE OF

P. D. BECKWITH

FRED E. LEE, Manager

DOWAGIAC, MICH.

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GOOD GOODS
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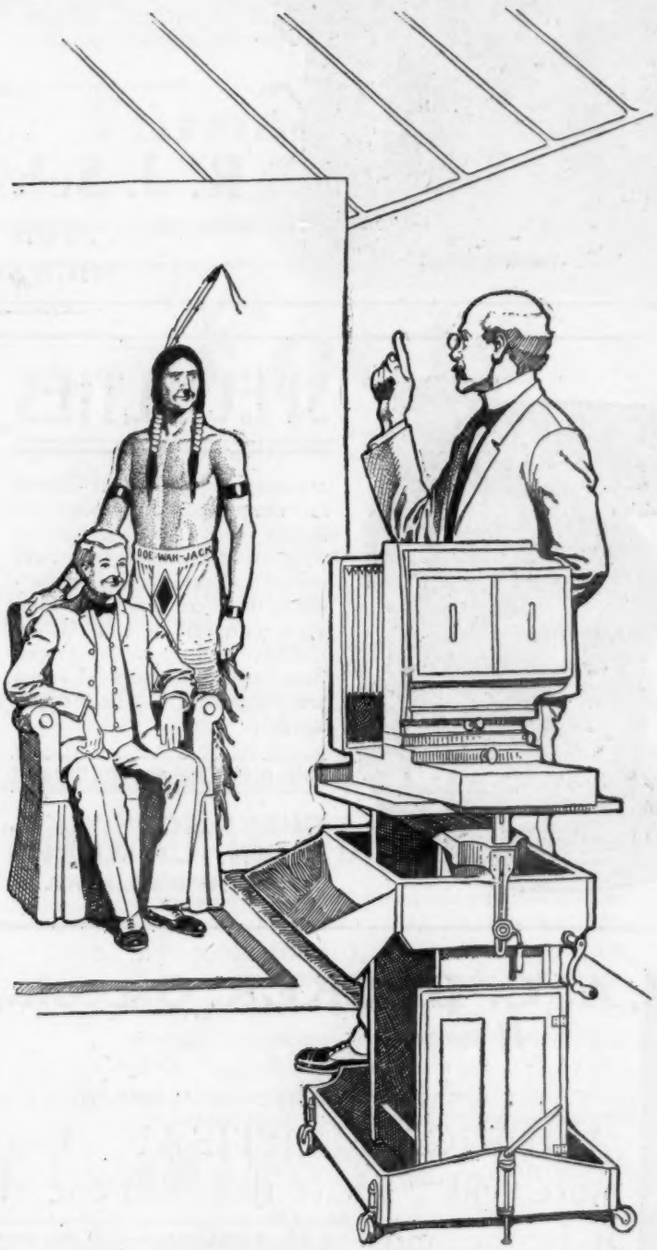

"My mother insisted upon my bringing a picture of Doe-wah-jack and myself taken together, so make it a good one."

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

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CHICAGO, APRIL 7, 1906.

Better Tin Plate.

THAT THERE is need that something be done to bring about a betterment of the tin plate condition, every one will admit. The manufacturers as well as the tinners themselves, not to mention the consumers of tin plate, are anxious to bring about the general use of a better class of material. As evidence of this spirit, one has but to revert to the recent Tin Plate Conference in Baltimore, where all concerned evidenced a willingness to help toward the improvement of conditions.

There is little use of entering into a discussion of why roofing plate with steel bases rust out and show "pin holes," while the old-time iron plates did not. As a matter of fact, the reason for this lack of durability of the steel plates is little understood. There are eminent authorities who affirm that steel will rust in the exact degree that iron rusts, and there are other eminent authorities who say that iron will last the longer. Both authorities quote tests to bear out their contentions. All that seems to be known on the subject is that rust to steel or to iron is a microbe which, once established, will eat its way onward until the steel or iron is consumed. It is certain that the system in vogue among some tinners of painting a tin roof after the rust has established itself, in preference to applying the paint before the rust has appeared, is a mistaken practice. It is another case of the bad corrupting the good; of the rotten apple in the barrel. The rust must be prevented. It cannot be cured.

With the fact once established that tin plate made from steel sheets is unsatisfactory, the only thing remaining is to search for a plate which is satisfactory. This can be found in the old time, iron based plate, as has been demonstrated in the past. A very satisfactory tin plate was made with soft Bessemer steel as a basis. This steel was little removed from refined iron and it was very satisfactory. There are, in fact, tin roofs of this material in the United States which have been standing the test of time for many years. The coating is very readily applied to this steel, which is soft, flexible and of a much more even quality than charcoal iron.

It was upon the adoption of Siemens-Martin open hearth steel by the American industry that the very unsatisfactory condition arose. The solution of the problem seems to be a return to the old-fashion iron plates, when the extra cost of plates constructed in this manner will be borne, or, in case that is too expensive, to use a very mild steel base.

Getting Together.

WHEN TWO naturally antithetical integrals of an industry meet in the spirit which was manifested generally by committees of the Stove Founders' National Defense Association and the Iron Molders' Union at the conference held in Chicago last week, it is a sign of a condition in that industry which should be welcome to all the parties in any way concerned.

There is so much of the unreasonably and unwisely aggressive spirit manifested in various lines of industry, that it would be well for both unions and manufacturing interests to take a leaf from the book of the stove men. There was no more unsatisfactory labor condition in the United States than that which existed in this line not so many years ago. There were conditions constantly leading to strife, conditions which it was absolutely necessary should be rectified. Valuable time was lost to both the worker and the wage payer. Conditions, instead of getting better, became worse. Then the conferences, which in each recent year has resulted in an amicable settling of difficulties, were decided upon.

Any man of reason will admit that always there are two sides to a question. But while admitting this, the average man will strike out for his side irrespective of whether this striking out will do him any lasting good or not. And in the heat of the argument, no man is apt to be able to see the side of his opponent with the clearness of vision which is possessed by the impartial observer. How many disastrous strikes have resulted from this fact, which have ended in no gain to either side and great loss to both. A meeting at stated intervals, such as those held by the molders and their employers, where it is understood that questions will be fairly treated and every effort will be made by each party to meet the contentions of the other and settle them in a fair way, seems to be the wisest possible course to take.

Exports and Imports.

THE STATISTICS of exports and imports prepared for the two-thirds of the fiscal year ending June 30th, 1906, which has just passed show a condition of affairs which must be pleasing to any American, whether he is directly interested in this matter or not. Figures of the exports of domestic manufactures from the United States during the month of February from 1896 to 1906 show that the amount of money represented has increased from $17,259,495 in 1896 to $46,586,585 in 1906, an increase of nearly 300 per cent.

The exports of 1905 exceeded those of any previous year, but there is no doubt, from the records already established, that the figures of 1906 will eclipse them to a marked degree. From June 30th, 1905, to Feb-

ruary 28th, 1906, the exports have been $190,000,000 greater than those of the corresponding months preceding. Manufactures are $45,000,000 in excess and agricultural products $133,000,000 in excess.

Figures show, also, an increase in imports, with the exception of articles of food, which in the eight months ending with February, 1906, amount to $171,000,000 as compared to $184,000,000 for the corresponding months of the previous fiscal year. The importing of coffee has fallen nearly $12,000,000, while sugar has decreased $5,000,000 and tea about $2,000,000.

In manufacturers' materials is found the most remarkable increase of imports. The class, "articles in a crude condition which enter into the various processes of domestic industry," shows for the eight months ending with February, 1906, a total of $264,000,000, as against $243,000,000 in the same months last year, while articles classed as "wholly or partially manufactured for use as materials in the manufactures and mechanic arts" is greater by $30,000,000, the total being $112,000,000. The increase in the partially manufactured materials occurs chiefly in tin, copper, iron and steel and chemicals. The increase in raw materials occurs chiefly in fibres, hides and skins, leaf tobacco and raw silk. The export of iron and steel manufactures shows an increase of $16,000,000.

A study of these statistics will show that we have exported more, which means that we have brought more money into the United States, and that we have imported more, which shows that we have been living better and spending more money. And still, notwithstanding the increased imports and the corresponding removal of money from this country, the exports have increased at so much greater a ratio that we may congratulate ourselves that we have been living better and yet have more money laid aside for the rainy day.

To Catch the Customer.

How SHALL I bring customers into my store? By advertising, surely. But advertising, if it is the best advertising in the world, will not bring customers in sufficient numbers to any store. That seems on the face of it to be a rash statement, but it is not. For an example, let us say that there are five thousand families whose business you have a good, fighting chance of obtaining. All of them, by the laws of division, you cannot possibly get. But let us say that you influence one thousand of them to purchase from your stock once by the use of good advertising copy. That will not be enough. In order to succeed, you must be able to make each of your customers purchase a good many more than one time. And they will not come the second time if they are not pleased the first time. They might read your advertisements until the crack of doom, but unless they were satisfied the first time, they would pass you by to the benefit of your competitor and to your own loss. Once you have hold of them, you must hang on like grim death.

Three ways suggest themselves by which you may do this. First, a clean, neat-looking stock; second, an efficient store service; third, prompt delivery.

An energetic use of the broom and dust cloth has been the foundation of more than one successful merchant's fortune in the hardware as well as in other lines. You may see from among a dozen people one or two who stand out in your estimation as nice looking, as clean looking, as desirable. Your first impression of one man may be good, of another bad. You don't know why; you don't stop to think why. The feeling presents itself to you, and instinctively you recognize it. This same feeling is presented instinctively when one goes into a place of business. Without thinking about the reasons, a customer is well impressed by the nice looking, the clean looking store, just as emphatically as he is by the nice looking, the clean looking individual. A dusty show case, an old broom leaning against the counter, may cost you more money than your advertising for the day will bring you.

Up-to-date, efficient store service means as much. You must be courteous, your clerks must be courteous; you must be obliging, your clerks must be obliging. You and your clerks must recognize the fact that there are many disagreeable and exacting people in the world who cannot purchase a pound of ten-penny nails without making as great a fuss as another man would make to purchase a house and lot. The salesman must "stay with" the customer until he has what he wants, no matter how disagreeable the task may be. You and your clerks must forget that you have sensibilities and remember merely that you are there for the purpose of satisfying your customer, holding your trade and making money for the house.

The question of prompt delivery is an important one. When people want things, they generally want them in a hurry. We are a race of procrastinators. We know we need a stove for that small room, but we never think of getting it until the cold snap comes, and then we curse the stove dealer until he has brought it around. We forget that there are a dozen other people who are waiting for a stove for "that small room" and an explanation from the dealer fails to sooth our ruffled nerves. What we want is a stove. This condition the dealer must meet. He cannot say, "Well, I will get Jones' stove to him to-morrow." It must be gotten there to-day. It can be done. Everything can be done if it absolutely must.

THE GREAT BIG THING AND THE MANUFACTURER.

By Ebenezer Bradtacks.

When the Humble Retailer allowed himself to stand Sponsor for the Self Creation of the Great Big Thing, which is Synonomous for the Catalogue House Committee, he put his Foot into a Red Hot Chaldron of Frenzied Freakishness.

This Embodiment of all the Virtues and a Microscopic Portion of the Vices had Mesmerized the Humble Retailer into Open Mouthed Adoration. It was not until Many Acts of Childish Idiocy had been Committed that the Humble Retailer began to realize that Infallibility and the Great Big Things did not have All Points in Common.

Then from many points the Searchlight of Investigation was turned onto the Great Big Thing, and the Humble Retailer began to Sit Up and Take Notice.

The Germ of Suspicion finally got a home in his Brain and for every Fresh Act of the Great Big Thing Millions of Fresh Germs saw the light of Day, for Somehow the Great Big Thing could commit no acts which were not productive of this Germ.

The Searchlight of Investigation thrown on the Innermost Workings of the Great Big Thing brings disclosures most Wierd and Wonderful. So different are these Workings from those of any other Brain known to Medical Science that undoubtedly a Vast Sum would be paid for the Privilege of Autopsy when the time comes.

As the most Remarkable Instance of All, It developed that the Largest of the Molecules which went to make up the Brain or Thinking Apparatus of the Great Big Thing was Nothing More or Less than that Pompous Personage who is known Far and Near as the Four Flusher, or the Man who never Makes Good. This man occupied the Sanctum Sanctorum of the Brain, or Thinking Apparatus of the Great Big Thing and Its each Apoplectic Heart Beat sang in Sweet Unison with his Desires.

The Great Big Thing, when It started on Its course of Correction, looked among the first to those Manufacturers who had built up a Strong Business with the Humble Retailer by giving him his Money's Worth. That these Manufacturers were Wicked, there can be no doubt, for the Great Big Thing, which was an Authority on Wickedness, said they were. That was sufficient.

At a meeting of the Components of the Great Big Thing resolutions were Created and Brought into Being by that Awesome Affair, to the effect that It should Ascertain from All Manufacturers whether or not they sold to the Catalogue Houses. Then, when certain of the Manufacturers had Freely admitted that they sold these Pirates of Trade, their names should be printed in the Koran of the Worshipers at the Shrine of the Awesome It and they should be cast into the Outer Darkness by the Humble Retailer so far as Business Relations were concerned.

But the resolution was nothing more or less than a Great Big Wind-filled Bluff. It has been proved to the Complete Satisfaction of Everybody, which is that Minor Portion of the Earth not included in the Great Big Thing, that there was no intention of carrying out this Project. The whole Idea seemed to Ordinary People to be to frighten the Wicked Manufacturers into doing Something which would put a Crimp on their Pocketbooks.

No Book of this Nature was ever prepared. It couldn't have been prepared without the expenditure of many, many Yellow Engravings from Uncle Sam's Art Collection and the Humble Retailer had a limit in the amount of Coin he could Put up for the Great Big Thing.

But the Bluff was carried out by the Great Big Thing under the Engineering of the Four Flusher, or the Man who Never Makes Good. The next move in Applying the Kibosh to the Manufacturers was made by means of a Proposition which followed strictly on the lines of this Resolution. The offer was simply this: "Mr. Manufacturer, promise you will have no business dealings with the Catalogue houses and we will make our Henchmen, the Humble Retailers, buy from You and refuse to buy from the Manufacturer who does sell to the Catalogue Houses."

This was almost a Business Matter with the Manufacturer, for, strange as it may seem, he was running his Plant for the Money there was In It for Him. Of course, that didn't suit the Great Big Thing, but somehow It couldn't seem to control the Morals of these Firms. But the Business Proposition Appealed to them. "All Right," they said, "if you will have the Humble Retailer buy from us and Exclude and Cast into Outer Darkness the Concerns who sell to the Catalogue Houses, we will give you our word not to sell to these Iniquitous Ones." And the Great Big Thing said that it would so instruct the Humble Retailer.

So Concerns in most of the Hardware Lines promised and they Refused to Fill the Orders of the Catalogue Houses when they received them. And the Catalogue Houses turned to the Other Manufacturers who had refused to listen to the Coaxing Ways of the Great Big Thing and got those materials and Dispensed them to the Thrifty Farmer.

And the Manufacturers who had listened to the Blandishments of the Great Big Thing sat back in their Revolving Chairs and waited for the Business to come in from the Humble Retailers whom the Great Big Thing had commanded to Patronize them. And they waited, twirling their thumbs with a Beatific Expression upon their Chaste Countenances. Then they waited Some More. Then—well, then they waited Some More. And with each Wait the Beatific Expression possessed a little less of the Beatific and a little more of the Expression. But they waited. Thousands of the content bringing Case Notes had been lost to them by the Removal from their Books of the Catalogue House accounts, but surely this would be returned to them by the Humble Retailer at the Command of the Great Big Thing. Why, yes, there could be no doubt of it. Had not the Great Big Thing said so? Certainly that was enough. Then, as he waited, the Great Light burst upon the Manufacturer. Possibly the Great Big Thing had been Chucking a Great Big Bluff. Possibly, just possibly, the Humble Retailer bought his hardware where he could make the Best Bargain. And the Manufacturer Thought and Thought (unlike the Great Big Thing, he *could* think), and the more he Thought the Madder he got. He said to himself, "I have been Held Up! I have given away Much Lucrative Business and have received the Ethereal Poo! Poo! for Mine in return. I have been Victimized and now I'll fight on sight. Woe is Me for hearkening to the Four Flusher or the Man who Never makes Good."

The Manufacturer is still thinking, but it is not likely that soon he will Act? It is more than Likely; it is a Surety. And when the Humble Retailer sees that the Great Big Thing has so Thrown the Cards that the Catalogue House can enter the Market just as Freely as any Big Purchaser, will not he feel Sad? Will not he feel like sticking the Pin Point of Indignation into the two Balloon-like Departments of the Big Thing's Brain, or Thinking Apparatus, which represent Its Knowledge of Its Own Goodness and Its Knowledge of the Wickedness of Others?

News Siftings

John Powell and associates are contemplating establishing a stove factory at Richmond, Texas.

The Wilson Stove & Manufacturing Company has been incorporated at St. Louis, Missouri, with a capital stock of $500,000.

William Thompson, vice president and general manager of the Kalamazoo Stove Company of Kalamazoo, Michigan, has been elected mayor of that city. Mr. Thompson was the democratic candidate.

Bantley Brothers Hardware Company, Lebanon, Missouri, are in the market for a full line of cook stoves, ranges and heaters and would like to hear from manufacturers with their catalogues, price lists, etc.

John M. Mintro, Louis H. Menne and William H. Covert are the incorporators of the Quincy Enameling & Foundry Company, Quincy, Illinois, which is capitalized at $4,000 to do a general foundry business.

Frederick J. Willock, Hayden Talbot, and John Nicklaus are the incorporators of the Willock Manufacturing Company, capitalized in New York City at $50,000 to manufacture and deal in stoves, furnaces, etc.

The large foundry and machine shop of Crane Brothers & Company, Edmonds, Washington, has been completed and the manufacture of stoves and iron bedseads will be conducted on a large scale at an early date.

The Caloric Fireless Cook Stove Company has been incorporated at Grand Rapids, Michigan, with a capital stock of $25,000 by Albert S. Hicks, Albert T. Thoits, John G. Gronberg, William B. Collins, Arthur W. Dean and Edgar M. Metheany.

The Jones & Hopkins Manufacturing Company of Nashville, Tennessee, will begin at once the erection of a building ninety by one hundred and eighty-five feet which will be equipped with the most modern machinery and will double their present output. The capital stock has been increased from $50,000 to $100,000.

It is reported from Marion, Indiana, that W. J. Swiner, J. W. Wilson and C. C. Jamison have organized a company for the manufacture of stoves and ranges and that plans have already been drawn for a foundry building, eighty by one hundred feet, main factory sixty by two hundred feet, boiler, pattern and office building.

The S. M. Howes Company of 40 to 46 Union street, Boston, Massachusetts, announce that it does not pay to make a small number of ovens, and in order to make sure that their output shall be at least ten thousand they have reduced prices to the lowest possible point. Dealers should write this firm for further information and mention THE AMERICAN ARTISAN.

The Globe Machine & Stamping Company of 3900 Hamilton avenue, N. E., Cleveland, Ohio, are sending postals to the trade which call attention to the fact that they manufacture to order special articles and special parts. The notice is engrossed firmly in the minds of the recipients by the attractiveness of the card, the upper two-thirds being an illustration of a beautiful woman's head.

The Arcade Manufacturing Company of Freeport, Illinois, has awarded contracts for the erection of a brass foundry, fifty by eighty feet, and a gray iron foundry, sixty-five by two hundred feet. These buildings are expected to be ready for occupancy by July 1st and will double the capacity of this plant.

The "E" and "C" series of the Born steel ranges, which have been brought out within the last two years, possess especially desirable features. They are constructed with grates which slide out through the front of the range without it being necessary to remove bolts or disturb any of the other parts.

The 1906 line of the "Detroit" vapor stoves are ready for shipment to dealers. The number thirty-two cabinet range, to which the Detroit Vapor Stove Company of Detroit, Michigan, is calling attention, has steel nickeled corner posts, polished nickel doors and full steel enameled body with base on casters, large oven and warming closet. Catalogue number ten will be sent to dealers mentioning THE AMERICAN ARTISAN.

The Shoals attachment has been brought out by the National Heating Appliance Company of Utica, New York. The claim is made that by its use the gases in stoves are ignited, causing an intense heat which insures a more uniform oven temperature. It is also said to be especially desirable when toasting or broiling is to be done. Stove dealers are invited to investigate. When writing kindly mention THE AMERICAN ARTISAN.

At a recent meeting of the March-Brownback Stove Company of Pottstown, Pennsylvania, the following officers and directors were elected: President, Franklin March; vice-president, James Rogers; treasurer, T. J. March; secretary, F. C. E. Mehlhouse; directors, Franklin March, Parkerford; Jones Rogers, Spring City; Henry M. Miller, Williams' Corner, Phoenixville; T. J. March, James Brownback, M. W. Baily and A. K. Shaner, Pottstown. This company is in a flourishing condition and has recently declared a four per cent dividend.

The Evans Stamping & Plating Company, Taunton, Massachusetts, manufacturers of nickel plated steel stove trimmings, acme oven thermometers, tin siphon mill oilers, etc., are forwarding to the trade one of the neatest "reminders" which could be made. This is a leather-covered paper-weight desk thermometer on which the degrees are shown by a revolving hand. The only advertising it contains is the neatly printed words, "Evans Stamping & Plating Company, Taunton, Massachusetts." It is an ornament to any desk and will keep this firm in the minds of the trade in a most pleasing and satisfactory way.

The Wallace Manufacturing Company of Pittsburgh, Pennsylvania, has been incorporated to act as a holding company for the Victor Lighting Company, Cleveland, Ohio, The National Heating & Lighting Company, Cleveland, Ohio, the Allright Manufacturing Company, Olmsted Falls, Ohio, and the Wallace Company of Pittsburgh, Pennsylvania. The plants of the companies who are parties to the merger will be aban-

doned, with the exception of the one at Olmsted Falls, which will be greatly enlarged. The president and general manager of the new company is Charles D. Wallace of Pittsburgh, Pennsylvania. The company's products are ranges, gas stoves, radiators and acetylene goods.

RESULT OF CONFERENCE BETWEEN STOVE MANUFACTURERS AND THEIR MOLDERS.

As stated in these columns last week, the chief matter up for settlement at the conference of the Stove Founders' National Defense Association and the Iron Molders' Union, was a settlement of the question as to whether or not there should be an advance of ten per cent in the molders' wage scale.

An evidence of the satisfactory results to all parties concerned which have been obtained and are being obtained by these yearly conferences is that this important question was amicably settled. The committees representing the Iron Molders' Union decided, after hearing the arguments presented by the committee for the Stove Founders' National Defense Association, to waive this claim and the wage scale for the ensuing year will not advance. The committee of the employers' association, on their part agreed to allow the changes in Clause Twelve of the National Agreement which are shown by the italics in the quotation which follows:

When it is shown that the aggregate loss on account of dull iron amounts to 4 per cent of the total value of the work poured by the molders in any one heat, it shall be deemed a bad heat and payment shall be made for all work lost from this cause.

When the aggregate loss from this cause is less than 4 per cent of the total value of the work poured by the molders in any one heat, and 10 per cent of the molders lose 10 per cent or more of their day's work in the aggregate, on account of dull iron ,then such men shall be paid for all such loss in excess of 4 per cent of their day's work; it being understood that where more than one cupola is used the molders receiving iron from each cupola shall be considered the same as though they were working in separate shops in making the above computation.

If sufficient iron is not furnished the molder to pour off his work, and such work has to remain over, he shall be paid for such work remaining over at one-half of the regular price.

These rules shall apply excepting in case of break-down of machinery, or other unavoidable accidents where no allowance shall be made.

Too much credit cannot be given to either of the bodies which are now representing, and which have represented in the past, the employers and the employes. An example is the fact that the question of increased wages has arisen four times, and twice the employers have given way to the employes and twice the employes have listened favorably to the arguments of the employers.

The absence of Martin Fox from the conference was sincerely regretted by all. Mr. Fox, ex-president of the Iron Molders' Union and the man to whom most credit is due for the present satisfactory understanding, is compelled by ill-health to remain in Florida. He is greatly liked and highly respected for his abilities by everyone concerned in the stove industry.

MEETING OF THE STOVE FOUNDERS' NATIONAL DEFENSE ASSOCIATION.

The twenty-first annual meeting of the Stove Founders' National Defense Association will be held at the Waldorf-Astoria hotel, New York City, on Tuesday, May 8.

Proceedings will commence promptly at 10:00 a. m.

Attention is called to the fact that the meeting of this association is held one day prior to the meeting of the National Association of Stove Manufacturers.

President C. H. Castle urges the attendance of every member at this meeting, as matters of special importance will be considered and acted upon.

THE NATIONAL ASSOCIATION OF STOVE MANUFACTURERS TO CONVENE MAY 9TH.

The thirty-fifth annual convention of the National Association of Stove Manufacturers will be held in the Waldorf-Astoria hotel, New York City, on May 9th. Thomas J. Hogan, secretary of the association, announces that important matters are to be brought up for discussion and he earnestly urges all manufacturers to be present. The indications are now, Mr. Hogan says, that the meeting will be largely attended and one of the most successful ever held.

In order to bring out the full force, non-members of the association are entitled to all the privileges of transportation rates and hotel accommodation.

As Mr. Hogan says, there is no equal expenditure of money which can bring to the manufacturer in general as much return, so be on hand, whether it is convenient or not.

The association is sending the following communication to manufacturers:

Secretary's Office, Auditorium Tower.
Chicago, March 26, 1906.

To the Stove Manufacturers of the U. S.:

Gentlemen:—The thirty-fifth annual convention of the National Association of Stove Manufacturers will be held at the Waldorf-Astoria, New York City, on Wednesday, May 9, 1906.

I am instructed by the president, Mr. Walter P. Warren, to extend an invitation to every stove manufacturer, whether a member or not of the association, to attend this meeting and take part in all the proceedings except in voting.

Topics of interest to the entire stove fraternity will be discussed and every effort is being put forth by the executive officers to make this meeting interesting, instructive and profitable to all who may attend. You are therefore cordially urged to set aside your business cares for a few days and meet your brother manufacturers and discuss with them the ways and means that will best serve to advance the interests of the stove industry. The advantages of gatherings of this kind are significant to the small even more than to the large houses, and no equal expenditure of time and money can reasonably yield as large returns as participation at gatherings of, and informal intercourse with, gentlemen engaged in the same line of business. All who come may rely upon the sincerest welcome from the members of the N. A. S. M.

Non-members will be entitled to all the privileges of reduced rates for transportation and special hotel rates, same as members of the association.

Representatives who are not members of firms, or officers of corporations, should produce credentials from their principals, addressed to the secretary of the association.

Transportation—Reduced rates, amounting to a fare and one-third for the round trip have been conceded by the Trunk Line Association, the Central Passenger Association, the Southern Association and the New England Passenger Association from points in their territory, upon the condition that at least one hundred (100) persons having certificates attend the meeting. Certificates should be obtained from the agent of whom the tickets are bought, and if the starting point is outside of the territory where certificates are issued, a short trip ticket to the nearest point in that territory should be secured and a ticket to destination bought from that point. Certificates should be signed by the agent of whom the tickets are purchased, and they must be signed at the meeting by the secretary and vised by the special agent who will be present for that purpose, in order to secure the rebate on the return trip. In starting, full fare must be paid, and the return trip will be made one-third fare upon presentation of the certificate properly vised.

HOTEL ACCOMMODATIONS.

Room without bath, for one person..$3 and upward.
Room without bath, for two persons..$5 and upward.
Room with bath for one person.....$4 and upward.
Room with bath for two persons....$6 and upward.

Rooms should be ordered immediately by mail, through the room clerk, in order to secure suitable locations, or through Secretary Hogan.

It is important and necessary, if you wish to be properly cared for, that you notify the hotel proprietors a little ahead of time to reserve for you such accommodations as you require, and state whether you desire a room with or without bath, and about what price.

Please return to me, as early as possible, enclosed postal advising your intention of being represented, and by whom.

Yours respectfully,
THOS. J. HOGAN, Secretary.

"CONCILIATION IN THE STOVE INDUSTRY."

John P. Frey, editor of the Iron Molders' Journal, and John R. Commons have collaborated in the preparation of a history of the stove industry which has been published in Bulletin No. 62 of the Department of Labor under the title, "Conciliation in the Stove Industry."

This work deals with the organization of stove moulders and stove foundrymen from the earliest times up to the present, describing the various causes which led to friction and giving a history of the critical strikes, the first conference agreement and the steps which have been taken to adjust questions which have arisen since that time.

The work is exhaustive. A perusal of its pages shows that great care has been taken in the collection of data and the able style in which it is written makes it not only valuable but entertaining to the stove world.

Copies of Bulletin No. 62 may be obtained from the Department of Labor, Wishington, D. C.

CULTER & PROCTOR RANGES.

The Culter & Proctor Stove Company says that thirty-seven years ago they commenced the manufacture of stoves in Peoria, Illinois, and that they have been doing business in that city ever since. From the start they determined to produce goods of the highest grade only and as perfect in operation and as durable as they could possibly make. At the present time the Peoria stoves and ranges have a reputation for quality, style and moderate price second to no other make.

This firm manufactures twenty-nine separate and distinct styles of stoves. One of their best known lines is the Peoria-Lexington steel range, which shows the stove builder's highest ability. The outside body of this range is said to be of the best obtainable heavy, anti-rust planished steel that will retain its lustre. This range has double walls of heavy steel, lined with heavy asbestos mill board, which are hand riveted every two inches with steeple head rivets.

The oven door hinge is put on with square head machine bolts through cast plate on inside, making it perfectly tight and rigid. The catch for the oven door and the cast top of the range are fastened on in the same way. All parts coming in contact with the fire or any intense heat are protected with cast iron plates. The top oven plate is covered with asbestos and protected with cast iron frame. Duplex grates which can be reversed for wood are used. This grate is said to be easily removed and replaced without disturbing the fire box linings or water front. It has a double flue bottom which is said to hold heat in the oven and insure quick, even baking. There is a thermometer in the oven door. The ornamentations on this range are said to be very elaborate, elegant and attractive. Full information can be obtained from the Culter & Proctor Stove Company of Peoria, Illinois. Do not forget to say, "Saw it in THE AMERICAN ARTISAN."

A STANDARD MALLEABLE RANGE.

The malleable St. Clair steel range is said by its makers, The Belleville Stove Works, of Belleville, Illinois, to be the very best malleable range on the market, without any exception. They add that they are fully aware that their success largely depends upon quality and finish and, keeping this in constant view, they lend every effort toward producing a range that will merit a large sale and constant demand.

The bodies of this range are made of Wellsville polished steel plates, all frames, doors, tops, top plates, covers, centers, in fact all parts that insure durability, are made of malleable iron, which is all riveted together in a substantial manner. The fire box is made extra heavy with duplex combination coal and wood grate. The water front is made straight or L shaped to give it increased heating surface. Ovens are made of cold rolled soft steel. The oven bottom is number twelve gauge steel, riveted on all four sides with strong braces, which prevents them from buckling or warping. The ash pan is made of heavy sheet steel and is of a good size. Flues are fully lined with heavy asbestos board. The nickeling on these ranges is said by the manufacturers to be the brightest and most durable. It is coppered first and then nickel plated on top.

This company's catalogue, containing one hundred and eighty-two pages and showing a full line of cooking stoves, heating stoves, ranges and hollow ware, etc., will be sent to dealers who mention THE AMERICAN ARTISAN."

EFFICIENT OIL STOVES.

The B. & B. oil stoves, manufactured by the Glazier Stove Company of Chelsea, Michigan, are giving satisfaction wherever they are in use.

The valve on all B. & B. stoves are in front and the oil fount is at the end. This arrangement overcomes any danger there might be when operating the valves or filling the oil fount. The flame produced by the B. & B. patent wickless blue flame burner is described as a flame within a flame. There are two separate and distinct circles of blue flame. When a cooking utensil is placed over the burner both flames spread toward the outside. Thus the center flame covers the space in the center of the frying-pan or dish which is not covered by the ordinary burner. These stoves are constructed with a view to durability and convenience and possess many additional features which should be of interest to dealers. A catalogue will be sent upon request to merchants mentioning THE AMERICAN ARTISAN.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 38 to 43 inclusive.

The Powell Hardware Company, of Birmingham, Alabama, have increased their capital stock from $150,000 to $225,000.

The capital stock of the Smith Improved Lock Nut Company, Chicago, Illinois, has been increased from $20,000 to $30,000.

The capital stock of the Hall-Robertson Hardware Company, Fargo, North Dakota, has been increased from $150,000 to $200,000.

The plant of the Falls Rivet & Machine Company, Cuyahoga Falls, Ohio, suffered a loss from fire on April 2d, which is estimated at $100,000.

The Royal Silver Company has been incorporated in New York City with a capital stock of $50,000 and will manufacture silver-plated hardware.

Kelley, Maus & Company will construct a large warehouse in southwest Chicago, which they will occupy with their stock of heavy hardware.

The Lubricating Metal Company, capital stock $100,000, has been incorporated in New York City to manufacture hardware and hardware supplies.

Senor Manuel E. Merlano of Cartagena, Colombia, wishes to receive catalogues of hardware articles, as well as catalogues of machinery and general merchandise.

O. E. Horst, Hartley, Iowa, has recently purchased the hardware store formerly owned in that place by S. A. Smith & Son, and will continue to conduct the business in the same place.

The Atlas Wire Fence & Post Company has secured temporary quarters at Toledo, Ohio, and is now installing machinery for the production of wire fencing. F. C. Black is superintendent.

Thomas A. Alexander, who has been associated with the Yale & Towne Manufacturing Company, is now connected with the Peck-Stow & Wilcox Company, 27 Murray street, New York City.

The Duplex Manufacturing Company has been incorporated in Chicago with a capital stock of $2,500 and will make hardware specialties. Arthur Pattison, E. D. Keith and C. O. Loucks are the incorporators.

The Rome Saddlery Hardware Manufacturing Company has been incorporated at Rome, New York, by A. M. Craig, H. M. Barnard, J. T. Williams, Ray Armstrong and S. M. Stevens. The capital stock is $100,000.

Alexis Witle Cutlery Company of New York City has been incorporated with a capital stock of $10,000 to manufacture razors, cutlery, etc. Alexis Witle, Josephine C. M. Witle, and John A. Schmidt are the incorporators.

The Valley Forge Cutlery Company, Newark, New Jersey, has awarded contracts for the erection of a building sixty by eighty-three feet and four stories in height which will be used as an addition to their plant at 28 South Sixth Street.

Huther Brothers Saw Manufacturing Company has been incorporated at Rochester, New York, with a capital stock of $25,000 and will manufacture saws, machinery, etc. The incorporators are W. B. and A. E. Huther and G. H. Aldridge.

Locks, hardware, etc., will be manufactured by the Franco-American Lock Company, incorporated in Manhattan, New York, with a capital stock of $1,000. The incorporators are Leopold Schiller, Isaac Brown, Aaron Bilchik and Arnold Schoeman.

The Smith & Hemenway Company of 296 Broadway, New York City, will move to 108-110 Duane street, that city, on or about May 1st. This change is necessitated by the fact that an increased volume of business has rendered the old quarters inadequate.

The Sealskin Swaty Strop Company, How building, Ottumwa, Iowa, are offering a sample of their strop to dealers. This certainly shows a progressive spirit and that this company has the fullest confidence in the value and selling qualities of the Sealskin Swaty strop.

Henry M. Gay has connected himself with the Phillip Gross Hardware Company, Milwaukee, Wisconsin, Mr. Gray leaves the "road" after a service of thirty-seven years. For the last three years he has represented the Wells & Nellegar Company of Chicago.

J. Edward Ogden of New York City has purchased property in Bayonne, New Jersey, on which it is reported he will erect immediately a factory for the manufacture of various hardware articles. It is said that when in full operation this plant will employ one thousand men.

The Jamestown File Works, Jamestown, New York, has been incorporated with a capital stock of $50,000, to manufacture files, rasps, etc. The incorporators are William and Arthur Hjorth, David D. Lewis, John A. Johnson and Boland M. Taylor, all of Jamestown, New York.

Contracts have been awarded for the erection of a new building by the Marshall-Wells Hardware Company, Duluth, Minnesota. It is said that the improvement will cost about $30,000, and that the building will be four stories in height and ninety by one hundred and twenty-five feet.

It is expected that the re-building of the nail mill of the Southern Steel Company's plant at Ensley, Alabama, will have been accomplished by April 15th. New machinery has been ordered and most of it is ready to be placed in position. The mill's capacity is being increased by the installation of new and finer machinery.

Butler Brothers, Randolph bridge, Chicago, Illinois, have issued their catalogue number 571, for April, 1906, in which they offer a special sale of crockery, glassware and china. Prices quoted therein are guaranteed until their May catalogue is issued. These prices are made notwithstanding the fact that Butler Brothers have abolished the package charge on crockery and glassware. The friends of this firm will all receive this catalogue but the new dealers who do not know as yet of the bargains to be obtained, should drop a postal to this firm immediately, at the same time mentioning THE AMERICAN ARTISAN.

Lightning Rods as a Money Making Line for Hardware Dealers.

The successful hardware man, the successful man in any line of business, must keep his eyes open always. He must ever be on the alert to grasp the opportunities which come to him, and he must be anxious to go after the opportunities which do not come to him.

As an instance of this there is the bicycle man. He had a good business a few years ago. Such was the demand for the line of goods he handled that he was making money fast, and he saw for himself within a few years a snug fortune. But the bicycle demand failed. The bicycle man could not make expenses. What was the result? The man who possessed the real business ability became the automobile agent and made an income greater by far than ever was his when the bicycle fever was at its height. The man who did not possess the ability to go ahead with the times stuck to the bicycle until his ship of business foundered. There is the difference.

Of course, the hardware man handles goods which are in constant demand. People will always use nails and saws and hammers and the other necessities. He will always have the income of last year and the year before, provided nothing unforeseen happens. But the hardware man can take a lesson from the bicycle man who metamorphosed into the automobile man. That is that there is always progress in the field of business and there is always some other way beside the one he has in hand to turn an honest dollar.

Do you handle lightning rods?

The lightning rod industry was once thrown into the slough of despond by unscrupulous men until its very name was enough to cause their victims to shudder. It became a laughing stock and its agents were made famous by every comic sheet in the country. And yet this industry was as honorable and its need as great to the public as any. It is not so many years ago that there were going through the country hundreds of men who through the force of their selling ability and the gullibility of the people whom they approached were selling so-called lightning rods which were absolutely without merit and which came near to destroying people's faith beyond redemption.

That there is need for the lightning rod there is no question. There is no shrewder set of men in business to-day than those who determine for the mutual fire insurance companies what risks shall be accepted or rejected and what rates of insurance shall be paid. These men have indorsed the lightning rod industry as it now stands. They laughed at it as it used to stand. To-day the great lightning rod manufacturers put their goods on the market with the indorsement of the insurance men, who say that the rods are constructed on principles of science and that the metals used in their construction are those which should be used, notwithstanding that the cost of proper manufacture is many fold greater than that of the old "graft" rod. The men who manufacture rods to-day are business men of standing. They compare favorably with the manufacturers of saws or furnaces or anything else. They have invested a great amount of capital in their factories. They employ skilled workmen. They are absolutely sure that when a rod leaves their shipping department it will do the work required of it.

And who have been the men to bring this industry where it belongs? Has it been a set of philanthropists? Most surely not. It has been a set of good business men. It has been a set of men who realized the need of a good lightning rod, who knew that there was money in a good rod, who knew the demand for efficiency in this line was great enough to overcome the prejudice which inferior goods had created years ago.

But this is largely retrospective. To-day the live hardware man realizes that he should carry a line of lightning rods just as he carries a line of nails. He knows that when he sells a customer that customer will not come to him some morning with wrath in his eye and say that the rod is no good; that his house was burned the night before as the result of being struck by lightning. He knows, on the other hand, that his customer will come to him some day and tell how the lightning struck all around him and burned the barn to the ground, maybe, but did not touch the house which was protected by the rod. He knows that his customers in this line are satisfied customers and that a business once established will grow just as business in any other good hardware line grows. And he also knows that he can sell rods at a good profit.

There are a number of manufacturers of real lightning rods in the field to-day who are pushing for business in a way which deserves the success they are attaining. And invariably they report that the outlook for the sale of rods this year is better than it has ever been before. The satisfaction which an honest rod has given, backed by the indorsement of the insurance examiners, is so great that in some cases manufacturers say that the demand this year will be a hundred per cent greater than it has been in past years.

Great effort is being made by the manufacturers to sell their products only to dealers of commercial standing. It is a recognized fact that lightning rods should be retailed only by hardware men and, possibly, implement dealers, and every effort is being made to eliminate the lightning rod swindler; the old lightning rod grafter. This has been done almost universally and the manufacturers are united in their efforts to repress him.

In an effort to bring the hardware dealer into closer touch with a money making line, THE AMERICAN ARTISAN prepared a list of questions concerning the lightning rod business in all its phases and requested

answers from a number of lightning rod manufacturers.

The replies of these firms are quoted below. We believe that you will do yourself a good turn by reading them.

To THE AMERICAN ARTISAN:

Replying to your questions, we beg to say that the prospect for business was never better with us than it is at the present time. The demand for efficient lightning rods is increasing every year and our business has more than doubled in the last six years. We are unable to say much regarding the old style lightning rod agent, as our knowledge of him is only from hearsay, as we sell to the hardware trade and agricultural implement dealers.

Yours very truly,

SECURITY LIGHTNING ROD COMPANY.

Burlington, Wisconsin.

To THE AMERICAN ARTISAN:

Replying to your favor concerning the lightning rod situation, beg to say that the outlook for the ensuing year is the best in our experience. The demand for lightning rods has increased one hundred per cent. Hardware dealers are taking up this line and are having a marked influence on the output. A condition which is very gratifying is the fact that the swindling lightning rod agent is not as much in evidence as formerly. We are doing what we can to eliminate them entirely by selling only to men that we know to be responsible. We are increasing the efficiency of our product by keeping it strictly up to date, by using the very best of material, the latest machinery, and by keeping in touch with the very best scientific ideas.

Yours very truly,

MOORE BROTHERS' LIGHTNING ROD CO.

Graham, Missouri.

To THE AMERICAN ARTISAN:

We are in receipt of your favor of the 6th inst. and in reply will answer your questions in the order in which they are asked.

The outlook for a good lightning rod business this year is better than any year since we have been engaged in it. In fact, we are working full force and shall continue to do so.

The demand for lightning rods is increasing. We could not say exactly to what extent but the fact that business is increasing at all times would indicate that it was to a considerable extent.

The condition that should receive special attention at the present time is that the manufacturer endeavor to put out a rod that is absolutely good; one that will give protection from damage by lightning; one that will not come apart and give trouble in a few years. The man who sells them should be looked after carefully and the lightning rod swindler, the old-time lightning rod grafter, should be entirely eliminated and lightning rods should be handled exclusively by the hardware and implement men, to whom it rightfully belongs.

Lightning rod agents, as the term is usually used, are but very seldom seen any more. Of course, at times the grafter gets in and will continue to do so as long as the manufacturing concern does not give this part of its business considerable attention. Our lightning rods are sold by regular dealers and we think you would hardly class them as lightning rod agents. In reality they are lightning agents and are glad of it, but I judge from the way your question is worded that you refer to the old-time fellow who is rapidly becoming extinct.

We use every care and every precaution to use only the best grade of goods in the manufacture of our rods. The manufacturing end of our business receives the personal attention of Prof. Dodd, who is the inventor of our cable and he sees to it that nothing but first-class rods leave the factory.

In order to discredit the work of irresponsible parties, we go to hardware and implement men. We send our expert to teach them how to rod a building. We give each agent an agent's certificate, which authorizes him to give our guarantee and which shows that he is able to do good work, that he understands the theory of protection from lightning by the use of our lightning rod and we agree that where any customer who is defrauded by an agent who carries our agent's certificate, will write to us within ten days of the swindle, giving number of the certificate of the agent who has practiced the swindle, we will make good his loss. This, of course, only applies to a case where the customer can show that the agent had our certificate and was the man whose name was written therein. We advertise our rods extensively in farm papers and tell the farmer how to distinguish our goods. We ask them to make the agent show his certificate and advise them to see that the trademark is on the end of every spool.

The great increase in the demand for our rods bears us out in this course. People want protection from lightning and they also want protection from lightning rod men. We think the rapid growth of the lightning rod business is due to the advertising campaign that has been carried on; to the publicity with which the business has been carried on; to the fact that the people have been educated by the great amount of educational work done and being done.

We are glad that you are taking up this subject and if we can give you any other information that will be of use to you, we will be glad to do it.

Yours very truly,

Des Moines, Iowa. DODD & STRUTHERS.

To THE AMERICAN ARTISAN:

Your letter in relation to the lightning rod situation received, and in reply thereto would say that the present indications are that the trade will double its output in 1906. As to what trade conditions should receive special attention at the present time, we think that if the hardware and implement dealers would wake up and give the matter a little more attention, it would improve the conditions. More hardware dealers are handling lightning rods, and are handling more lightning rods, than formerly, and a good indication is that the old lightning rod agent is not as much in evidence as in former years.

As to our efforts to discredit the work of irresponsible dealers, we would say that we do everything in our power to find out before we ship any orders whether the party ordering the same is responsible or not. We cater to the best hardware and implement trade only. Concerning our efforts to increase the efficiency of our products, would say we have doubled our capacity this year for the season of 1906.

We believe that the only method of handling lightning rods is through the trade, just as any other article in a hardware or implement store is handled. We think if all manufacturers of copper cable lightning rods would indorse this plan, the fake lightning rod man of old would soon be a thing of the past.

Yours truly,

"MANUFACTURER."

To THE AMERICAN ARTISAN:

Your letter of recent date referring to the lightning rod industry received.

In reply would state that from the manner of inquiries at our command at this time, and the promising trade conditions in general, we have every reason to believe that the consumption of goods should show a healthy increase in 1906, notwithstanding the fact that the raw materials entering the manufacture of these goods has advanced materially and the manufacturer has been compelled to advance price of goods accordingly.

The demand for lightning rods is increasing.

In every case where the business is intelligently handled and honestly conducted we find an increased demand in our trade.

At all times, which includes the present, particular attention should be given to the consuming trade. By this we mean a campaign of education should be the main feature, thereby showing the science and efficacy of a good conductor. To the intelligent mind there can be no possible doubt as to the merits, while those who have not had the matter presented, based upon science and facts, are still clinging to the

side of ignorance and prejudice for want of knowledge on the subject matter.

Are hardware dealers now handling more rods than formerly? We would say yes, under certain conditions and circumstances. Wherever a hardware dealer finds it possible to place these goods in the hands of some one of his representatives who gives them exclusive time and attention, the same as he does in the sale of farm implements, we find it opens up an entire new industry in his business and one that he can not fail to operate if he be a success in the general line. Again, a man of brains is the most successful, as in all lines.

Are lightning rod agents as much in evidence as formerly? If you have reference to the type and character of men who were found in the business twenty-five years ago, we would say that most have passed away and may well have this epitaph written: *"There lies the greatest liar this country or generation produced in this locality."* But if you are looking for the man in this business that we have in mind, we believe that within the next decade you will, if not at this time, see him and find him much more in evidence, advocating a cause in which humanity should be, and he will be as much interested in his work as in any field of the electrical science, be it artificial or atmospheric.

We positively decline to furnish irresponsible dealers the goods under any and all circumstances, if we have knowledge of this fact, and stand ready and willing to co-operate with anyone in eliminating them from the business. We consider this particular feature the most difficult to remove from the mind of the consumer.

What efforts are we making to increase the efficiency of products?

By improving the product through the various manufacturers and a careful study of the principles which underlie the science of electricity.

A careful study and an active experience in the business solid for the past fifteen years has afforded an excellent opportunity for us to determine the fact, if from no other source, that the lightning rod has safely passed beyond any experimental stage and can be relied upon to do its work when of the proper construction and scientifically placed on the building. The time is now at hand—yes, it is here—when mutual insurance companies demand this protection from their patrons and the time is not far distant when the old line companies will make the same demand. This is in harmony with the facts as presented by the Department of Weather Bureau at Washington, D. C. We need no better argument than that issued from that source.

Yours truly,

"MANUFACTURERS' AGENT."

Pittsburgh, Pennsylvania.

TO THE AMERICAN ARTISAN:

Answering your interrogatories of March 28, we desire to say that the outlook for the lightning rod business was never in a more flourishing condition than it is at the present time. This is due largely to the increased number of buildings and a more widespread knowledge of the usefulness of lightning rods.

The demand for lightning rods is largely on the increase, due to the fact that the business is becoming localized, and in that way the territory is more thoroughly covered.

It is our opinion that the trade condition that is existing, as to the localizing of the business, should have the special attention of all wholesale dealers, and attention should be paid to the placing of goods to be sold into the hands of responsible parties who could be depended upon to do justice to their patrons.

We find the readiest sale for the twisted section rod, three-fourths inch diameter being the prevailing size. The reason for the demand for this character of goods is due to the surface capacity of the rod and its availability as to cost for the use on ordinary farm buildings.

The lightning rod agent is more in evidence than ever before and it will be found upon investigation that the character of these men is far better than that of those who were roaming through the country several years ago. The lightning rod man now covers but a very small strip of territory, in many instances not going far beyond the confines of his own county, and finds plenty of work to keep him busy during the whole storm season. Many of the representatives have built up a lucrative business. It is quite a task for an irresponsible lightning rod man to purchase a high grade of goods, as past experience has proven to the manufacturer that there is no money in dealing with that kind of a person, as his efforts are only for momentary gain, without any thought of the future, and tends to bring the whole business into disrepute. In recent years manufacturers have been very successful in interesting men who have a thought and care for the future in building up an established business.

Yours truly,

MANUFACTURER.

A PROFITABLE LINE.

The Stewart Iron Works Company, Cincinnati, Ohio, manufacturers of iron fances, etc., are advancing many reasons which should influence the live dealer to represent them. This company has received the two highest awards for their line of goods at the St. Louis world's fair and claim to have in their factory the world's greatest iron fence works. A little folder which this company is sending out shows on the first page an attractive residence which does not look attractive because it is surrounded by the typical wood fence with its broken pickets and its lack of alignment. Lifting up this page, one sees beneath the same residence surrounded by an iron fence. The change from disorder to neatness makes this dwelling look many times as well and cannot fail to impress the house owner with the fact that the fence surrounding his grounds is of very material moment in the general appearance of his home.

This firm makes a specialty of iron fences, entrance gates, iron reservoir vases, drinking and lawn fountains, settees, etc., for residences, courthouses, cemeteries, churches, school houses, hospitals, parks, cemetery lot enclosures, etc., so that there is a very extensive field from which the dealer can draw.

Their fences have adjustable malleable and steel foundation base; they provide for the contraction and expansion of the iron; have an adjustable center support; adjustable line braces; a self-closing gate, and are mechanically constructed. This is a line which any dealer can handle to advantage and a letter dropped to the Stewart Iron Works Company, may mean a material increase to your year's income. When writing, do not fail to mention THE AMERICAN ARTISAN.

SOME SHOOTING RECORDS.

The recent shooting tournaments have demonstrated clearly that shells and cartridges loaded by the Peters Cartridge Company, Cincinnati, Ohio, are second to none in uniformity of excellence.

At Fort Worth, Texas, on March 3d, the three highest scores of the day were made by experts using Peters factory loaded shells. At Canton, Ohio, February 22d, the high general average was won by a marksman using Peters regular factory loads.

At the live bird shoot held at Little Rock, Ark., March 6th, Mr. Paul R. Litzke, shooting Peters shells, won high average for the day, scoring 61 out of 70, and making a run of 24 straight. The championship

was won by Mr. John M. Pemberton of Ashvale, score 23 out of 25, with Peters Premier shells. Mr. Pemberton was second high gun for the entire day and Mr. W. B. Powell third high gun. Mr. Powell also shot Peters shells.

Mr. C. A. Young finished on March 10th a very remarkable and successful trip through Texas, beginning at Ennis, Texas, January 17th, and finishing at Palestine, Texas, on March 9th. He shot in fourteen different towns and broke 2,381 targets out of a possible 2,490, an average of 95.6 per cent. Mr. Young used Peters factory loaded shells not especially loaded for him, but bought from dealers' regular stock wherever he happened to need them. This proves clearly that the regular run of Ideals and other grades of shells made by The Peters Cartridge Company can be depended upon absolutely.

When writing to this company, do not fail to mention THE AMERICAN ARTISAN.

DOOR TRACKS.

The Griffin Manufacturing Company's E. K. steel tracks, which are suitable for any make of barn door hangers, are claimed to be the strongest and stiffest track on the market. They are made of stiff steel, carefully straightened, while the brackets are made of malleable iron of the best grade, firmly riveted on.

These tracks are made in four, six, eight, ten and twelve foot lengths. They are up to the standard set by the other products of this company and give general satisfaction.

Griffin Door Tracks.

For further information address the Griffin Manufacturing Company, Erie, Pennsylvania, and mention THE AMERICAN ARTISAN.

TO SHIP WHITE LEAD.

The steel white lead keg, manufactured by the American Can Company, Chicago, Illinois, has been the means of removing some of the greatest causes for complaint on the part of consignees of white lead.

The advantages of a steel keg for the shipment and storage of lead are readily seen and they will soon supersede wooden kegs, in all probability.

In the first place, a steel keg is much stronger than a wooden keg, is not collapsible, and it prevents drying out, caking and skinning of the lead. It preserves the lead also, and when a steel keg is opened it will be found that it is full of usable lead and that there is not the percentage of loss which accompanies wooden keg packed lead.

The kegs made by the American Can Company, as illustrated in the accompanying cut, close tightly after having once been opened, thus preserving the balance of lead when only a portion of the keg's contents have been used.

Other advantages of this keg are that, requiring no coopering, it may be much more rapidly filled than a wooden keg and it lessens the loss of fire by doing away with oil-soaked, inflammable barrels and oily floors.

Have you ever weighed up a wooden keg after emptying and figured how much oil had soaked into the wood? Did you ever figure that the oil which seeps out of wooden kegs has been paid for by you at white lead prices?

A Steel White Lead Keg.

These are pertinent questions and should be given consideration by the dealer.

The fact of the many uses to which such a keg can be put, after being emptied of lead should also have its influence.

This keg is an air-tight metal package with double friction top, clinched on for shipping. It answers the purpose for which it is made in every particular.

You can receive full information from its manufacturers if you will, when writing, mention THE AMERICAN ARTISAN.

A STRONG LINE OF REFRIGERATORS.

The time is at hand when the dealer must be considering the acquirement of a stock of strictly hot weather goods. Chief among these are refrigerators, on which there is sure to be a heavy demand when the mercury begins to loiter around at the top end of the tube.

The refrigerators of the Herrick Refrigerator Company, Waterloo, Iowa, should be given earnest consideration by the dealer before he decides what line he will handle. In the building of these refrigerators, the best workmanship, material and finish is used. Even the smallest sizes have solid oak cases. All walls and doors are guaranteed to be packed with

solid mineral wool insulation to more than double the thickness which is used in the ordinary refrigerator. The result of this is a material saving of ice and a corresponding economy of operation. This refrigerator is said to have an absolutely dry air system and perfect circulation. There is no dampness or metal lining to breed and hold disease germs and foul odors. The pans are seamless, non-rusting and non-leaking.

This refrigerator possesses such strong talking points that a dealer who has it in stock, its manufacturers say, need fear no competition. You will receive full information if you address this company and at the same time mention THE AMERICAN ARTISAN.

REVISED WALL STREET DIRECTORY.

An April Fool's day copartnership directory of the Stock Exchange was circulated on the floor yesterday. It contained the names of members associated in odd ways.

McKinley and Roosevelt and McClellan and Coler headed the statesmen; there was the bird firm of Wrenn, Robins & Rook; the animal firm of Schley, Fox & Leo; the piscatorial firm of Bass & Fish, and the outdoor firm of Field, Forrest & La Montagne. Some of the other combinations were: Ketcham & Kissam; Brain, Minis, Blood & Co.; Rosenblatt & Thorne, Head & Tailer, Roe & Bacon, Cutting, Slaughter & Slayback, Poor & Content, and Wiley, Wooley, Wolf & Co.—New York Commercial.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND INCORPORATIONS.

North Branch, Missouri—J. B. Smith.

Tacoma, Washington—The LeMaster Hardware Company; capital stock, $25,000.

Wathena, Kansas—Wathena Hardware Company; capital stock, $5,000.

Kansas City, Missouri—Kinney Hardware & Manufacturing Company; capital stock, $2,500; incorporators are John J. Kinney, F. Kinney and Thomas Gorman.

Atlanta, Georgia—Lowry Company; capital stock, $125,000.

Springfield, Ohio—George Haucke Company; incorporators are J. G. Haucke, August Michel and others; capital stock, $40,000.

Wilmington, Delaware—Keystone Saddlery & Hardware Company; capital stock, $50,000.

Rochelle, New York—William A. Klein.

Gonzales, Texas—W. J. Froehner.

Princeton, West Virginia—Mercer Hardware & Furniture Co.; capital stock, $25,000.

Brewer, Texas—John Parker.

Lincoln, Illinois—Nelson J. Parker.

Two Harbors, Minnesota—Two Harbors Hardware Company.

Trimble, Tennessee—Trimble Hardware Company; capital stock, $15,000; incorporators are T. A. Pierce, W. L. Halloman and others.

Terre Haute, Indiana—Edgar Dick Hardware Company; capital stock, $10,000; incorporators are Edgar Dick, James Luther and W. A. Hamilton.

Gibson City, Illinois—George Collier.

Green Bay, Wisconsin—J. C. Wilson and B. L. Walter.

Wayland, Iowa—E. H. Faris.

Tolono, Illinois—Justin Crawford and William Charles.

Montezuma, Iowa—W. L. Baker and Clem F. Hall.

Corpus Christi, Texas—Corpus Christi Hardware Company; capital stock, $20,000; incorporators are W. J. Smith, Chas. H. Flato, W. G. Blake and others.

BUSINESS CHANGES.

Fort Collins, Colorado—A. A. Ferguson succeeds F. N. B. Scott.

Shelby, Iowa—Miller & Antes succeed the Shelby Hardware Company.

Lake Park, Iowa—J. J. Hoffert succeeds J. W. Brandon.

Greeley, Nebraska—Greeley Mercantile Company succeeds L. A. Winchell.

Shickley, Nebraska—Rawlinson & Long succeed McPherson Brothers.

Haigler, Nebraska—I. D. Long succeeds J. C. McPherson.

Westmore, Kansas—Rabenstarf Brothers succeed Hough & Hayden.

Hartley, Iowa—O. E. Horst succeeds S. A. Smith.

Hawarden, Iowa—Lewis Smith succeeds Matt Lien.

Salem, Oregon—Wade, Pearce & Company succeed R. M. Wade & Company.

Curtis, Nebraska—Kempton Brothers succeed Kibbon & Kempton.

Orleans, Nebraska—C. D. Ellis & Company succeed A. F. Burtsch.

Nashville, Oklahoma—Childs M. Wilson succeeds Douglas Hardware Company.

Stilwell, Kansas—W. M. Moon succeeds A. L. Ladeaux.

Sweet Springs, Missouri—L. J. Edgar succeeds L. J. Edgar Company.

Peru, Nebraska—R. W. Weavarling succeeds Dobbs & Weavarling.

Mound City, Missouri—E. R. Lupps succeeds J. S. Parker.

Vall, Iowa—R. McGuire succeeds T. J. Giblin.

Bloomington, Illinois—Charles Woiceski succeeds S. H. Dimmitt.

South Whitley, Indiana—W. M. Maston succeeds J. W. Burwell.

Birmingham, Alabama—L. Boise succeeds Leaverton & Fuller.

Madison, Iowa—W. P. Lindsey succeeds R. C. H. Lindsey.

Shirleysburg, Pennsylvania—J. Monroe Lutz succeeds L. J. Meyers.

Bucyrus, Ohio—D. Picking & Company succeeds Miller & Smith.

Sioux City, Iowa—Louis Hugron succeeds Louis Kelling.

Farmington, Iowa—F. L. Cook & Company succeeds C. M. Doherty & Company.

West Branch, Iowa—Mr. Myers succeeds Myers & Zellar.

MISCELLANEOUS.

Beebe, Arkansas—H. B. Strange; deceased.

Macon, Georgia—David A. Piercy; deceased.

Iowa City, Iowa—Mantz & Reed Hardware Company; destroyed by fire; loss, $10,000.

Winger, North Dakota—Thompson Hardware Company; destroyed by fire.

Johnstown, Pennsylvania—Nees Hardware Company; destroyed by fire; loss, $20,000.

Gallatin, Missouri—Howard Poage & Company; new quarters.

Zanesville, Ohio—Willis Lumb & Son; burglarized; loss, $35.

Bridgewater, South Dakota—Smith & Elwine; destroyed by fire; loss fully covered by insurance.

Taylor, Texas—Peterson & Selstrom; burglarized; loss, $60.

Johnstown, Pennsylvania—Swank Hardware Company; destroyed by fire; loss, $1,000,000.

Fort Wayne, Indiana—F. M. Smith Hardware Company; destroyed by fire; loss, $10,000; fully covered by insurance.

Eastmann, Georgia—Bohannon & McRae; burglarized.

Virginia, Minnesota—Virginia Hardware Company; burglarized.

Duluth, Minnesota—Joseph Fox; burglarized.

Goldsboro, North Carolina—Yelverton Hardware Company; burglarized.

Dunkirk, New York—U. S. Radiator Works; destroyed by fire; loss, $150,000.

Heating and Ventilating

ROUND OAK FURNACES.

When the estate of P. D. Beckwith, Dowagiac, Michigan, does anything, it does it right. An example is their catalogue describing Round Oak furnaces. This company is pursuing the same tactics with the Round Oak furnace which they followed with the Round Oak stoves and report that its large and constantly increasing sales prove again what every one knows: that an article honestly made and honestly sold and possessing real merit, is bound to succeed. It is said of this furnace that it will hold fire twenty-four hours without the use of check draft in the pipe collar. It has an ash pit which is cast in one solid piece. The top is a one-piece casting which, it is claimed, will never leak gas or smoke. Its principle of construction, the three flue, is as "old as the hills" and they say has never been improved upon. All three flues are inside the casing—an important feature. Every furnace buyer should understand this point. Flues outside the casing make a hot cellar and heat in the cellar is, of course, wasted.

The special hot blast attachment, used for soft coal principally, is guaranteed as effective as the best one ever known, without the usual drawbacks, that is, seams and holes in the fire pot and projections into the fire chamber. The Round Oak furnace has no tubes or flues or projections of any sort in the combustion chamber, a point which the intending purchaser should note. Every Round Oak furnace is mounted complete in the factory just as it will be when eventually started to work. Every part is carefully fitted, marked and inspected before it leaves the factory. Its manufacturers state that no pains or expense are spared to make the furnace good. It is made to last, to prove its economy and effectiveness during a lifetime of service and to prove that it is the cheapest in the end to buy the best. Full details are given in this catalogue. It will be sent to dealers upon request, if they mention THE AMERICAN ARTISAN.

TORRID ZONE FURNACES.

The Torrid Zone furnaces, made by the Lennox Furnace Company of Marshalltown, Iowa, possess a great many most excellent points, enough in fact to bear out the contention of its makers that this furnace is second to none upon the market to-day.

The Lennox Company says that for twelve years they have employed an expert heating engineer to study heating problems and their output of 1906 is the result of this steady application. Simplicity of construction is said to have overcome all difficulties, while at the same time the cost of manufacture is reduced.

In this furnace a solid steel shell, riveted by powerful machinery like a boiler, as dust-proof and as gas-tight as any steam boiler, covers the fire pot, ash pit and all. There is not a packed joint of any kind to leak gas nor is the oxygen burned out of the air by coming in contact with the superheated parts.

The Lennox Furnace Company was one of the first to manufacture steel furnaces and it claims that it now sells more steel furnaces than any other one company in the United States and that its heaters are sold from Pittsburgh to Denver and from Canada to Texas.

This company also makes a specialty of manufacturing furnaces for school buildings and churches. The furnaces they use for these purposes are made in three sizes. They are extra heavy and have an immense heating surface. The body of the furnace is made of steel, three-sixteenths of an inch thick.

When writing to this company do not neglect to mention THE AMERICAN ARTISAN.

ANNUAL MEETING STEAM AND HOT WATER FITTERS.

THE AMERICAN ARTISAN is in receipt of advance copy of a notice which will appear in the "Official Bulletin" of the National Association of Master Steam and Hot Water Fitters, to the effect that the eighteenth annual convention of this organization will be held at Atlantic City, New Jersey, June 20, 21, 22 and 23, 1906, with headquarters at the St. Charles Hotel. We quote herewith the notice which is being sent to manufacturers and dealers in accord with the National Association of Master Steam and Hot Water Fitters:

Gentlemen:

We hereby extend to you a hearty invitation to attend the eighteenth annual convention of the National Association of Master Steam and Hot Water Fitters, to be held at Atlantic City, N. J., June 20th, 21st, 22d and 23d, 1906; headquarters will be at the St. Charles Hotel.

This association will take especial pleasure in welcoming to its convention the manufacturers and dealers who so honorably stand with us in proclaiming and practicing trade protection. We are desirous, also, that both you and our members may have the advantage that this occasion affords of meeting each other personally, and of discussing matters that are working for the best interests of each.

Trusting that we will see a goodly number "in accord" at the forthcoming convention, we remain,

Yours very truly,

BOARD OF DIRECTORS.

Henry L. Hall, Chairman.
Henry B. Gombers, Secretary.

PARAGRAPHS.

The Union Radiator Company, Johnstown, Pennsylvania, has been incorporated with a capital stock of $75,000.

The Robinson Furnace Company of 107-109 Lake Street, Chicago, has been compelled, as a result of the heavy demand for the Robinson hot blast furnace, to add another floor, fifty by one hundred and fifty feet, to their plant.

The L. J. Mueller Furnace Company of Milwaukee, Wisconsin, has established a branch at Seattle, Washington, with office and show rooms at 406 Occidental avenue. Mr. Frank H. Hannan, who has been on the road for them for many years and who is well acquainted with the trade, is manager of this branch. A large stock of all goods manufactured by the L. J. Mueller Furnace Company is carried on hand at their new branch.

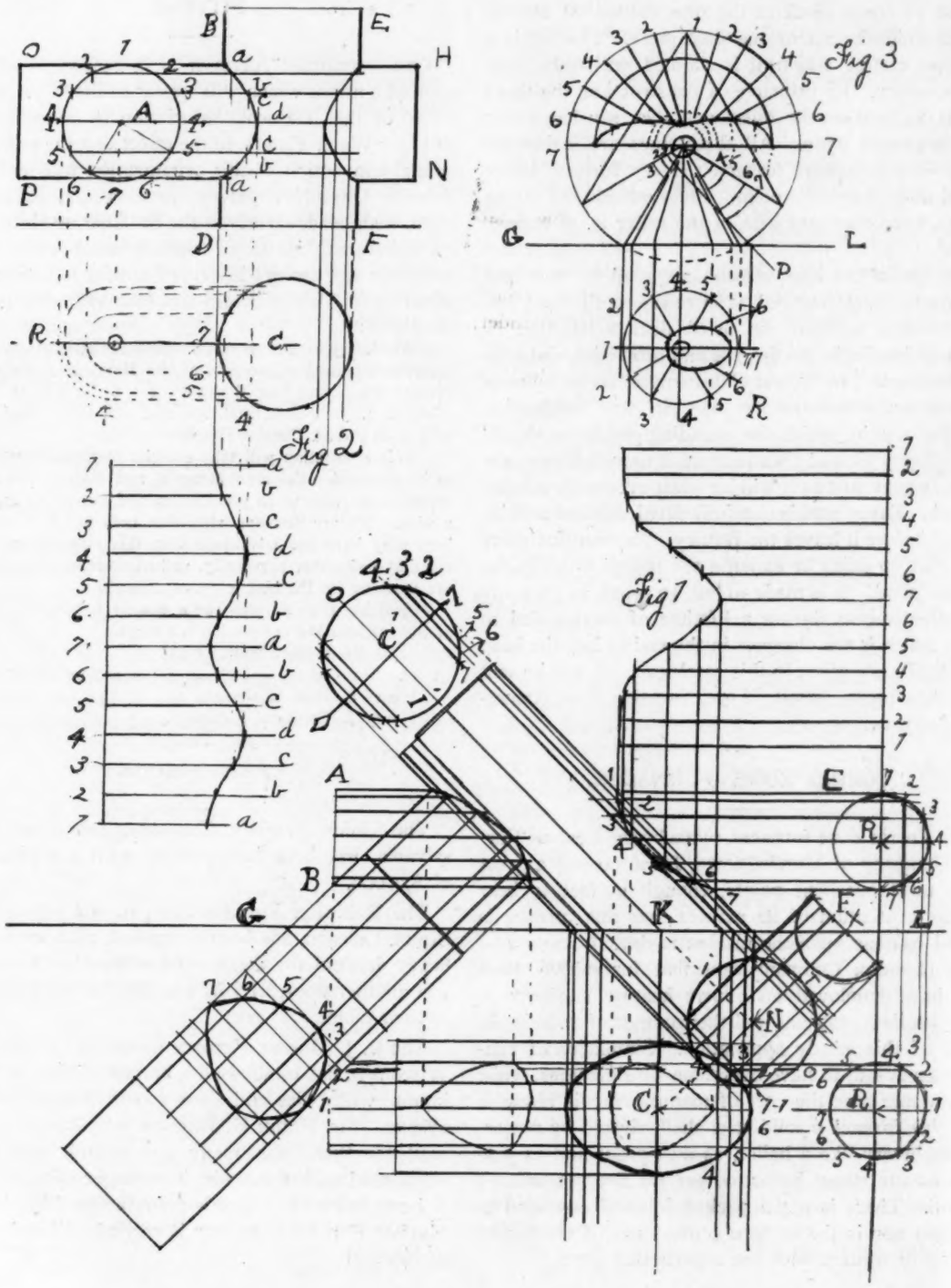
Principles of Intersection.

PART XXXII. PLATE XIII.

(Copyright, 1906, by Joseph P. Coleman.)

INTERSECTIONS BETWEEN CYLINDERS OF UNEQUAL DIAMETERS, SHOWING HOW TO CONSTRUCT THE REQUIRED FORM OF THE INTERSECTION AND LAY OUT THE PATTERNS FOR A TEE JOINT.

General instructions for all problems of this class: Construct the elevation of the large cylinder in the most convenient position on the paper. In Fig. 1 the large cylinder is inclined to the ground line at an angle of 45 degrees, while in Fig. 2 the large cylinder is placed in a vertical position. The base of the cylinder in Fig. 2 is a circle, while the intersection of the cylinder with the ground line in Fig. 1 is an oval. Draw the elevation of the small cylinder, intersecting the large cylinder, or passing entirely through. Divide the small circle into a convenient number of points, draw lines through the points indefinite in



length. Draw a plan of the small cylinder, which is divided into the same number of points as shown in the elevation. Through the points of division in the plan draw the lines intersecting the plan of the base of large cylinder in points. Perpendicular lines from the points intersecting the lines in the elevation will give the points of intersection between the cylinders, trace lines joining the points to show the form of the intersection. From the points of intersection draw perpendicular lines, to intersect the lines in the outstretch, to obtain the pattern.

SOLUTION ON DRAWING BOARD.

Referring to the illustration Fig. 1, the ground line is G-L. The elevation of the large cylinder is placed at an angle of 45 degrees with the ground line, the form of the cylinder is a circle as shown by 0-4-3-2-1-5, 6-7. C′ is the center, the line C′1 terminating in a spearhead, is an axis to revolve the circle in an upright position, K-O is a line drawn through the center of the cylinder intersecting the ground line at K. Draw the horizontal lines through the points in the small circle in the elevation as shown.

From N as a center describe a circle as shown, and at X as a center describe a semicircle of the small cylinder. Divide the semicircle into points similar to the whole circle. Through the points draw lines intersecting the large circle in points. Through the points draw lines parallel to the sides of large cylinder, crossing the lines in elevation in points 1-2-3-4-5-6-7. Continue the inclined lines to intersect the circle in elevation in points 4-3-2-1-5-6-7.

TO LAY OUT THE PATTERN.

Construct a straight line perpendicular to A-E. Space off the points of division, shown on the small circle, 1-2-3-4-5, 6-7-6-5, 4-3-2-1. Through the points draw perpendicular lines to the outstretch line. Through the points 1-2-3-4-5, 6-7 on the curve of intersection draw the vertical lines intersecting the pattern lines in lines numbered similar, giving points, Lines jointing the points, give the pattern of the intersection of the small cylinder with the side of the large cylinder.

To find the oval shape shown in plan proceed as follows: Where the inclined lines intersect the ground lines draw perpendicular lines indefinite. On those lines space the distances measuring from line C′-1 in elevation to points 4-3-2. The distances are all spaced from line C-R and on each side of line K-C. Lines traced through the points will give the oval shape. A projected view of the intersection is shown inside the oval. Draw the small circle in plan, which will be divided into points similar to the circle in elevation and numbered as shown in plan, 4-4 being the outside points, 1 is at the top, 7 at the bottom of the cylinder. Through the points draw lines intersecting the oval form as shown. Those lines and the perpendiculars from the ground line intersect the oval form at the same points. If the circle of large cylinder was not drawn in plan you would draw perpendicular lines from the points in the oval to the ground line, then continue parallel to the sides of large cylinder, intersecting the lines drawn in elevation in points of intersection, giving the curve of intersection, between the cylinders. The bottom of large cylinder in elevation is divided into points similar to the top part, the inclined lines are drawn parallel to the side of cylinder, intersecting the horizontal lines drawn through the points in the small circle, giving the other curve of intersection.

TO FIND THE SHAPE CUT OUT OF THE LARGE CYLINDER.

From the second curve of intersection draw indefinite lines, perpendicular to the side of the cylinder. Draw the line 1-7 perpendicular to those lines. Measure the distances on the circle of large cylinder from 1 to 2, 3-4 respectively; space those distances from the line 1-7 as shown. Lines traced through the points give the shape cut from large cylinder. At the first curve of intersection point 7 is at the bottom and the shape cut from large cylinder must be placed on the metal so the point 7 is at the bottom, to obtain the shape of opening in large cylinder at the first curve of intersection.

Fig. 2 in the illustration shows the intersection of two cylinders of unequal diameters, whose axes are placed at a right angle. The elevation of the large cylinder is shown by B, E, D, F. The base is a circle. C is the center. The elevation of the small cylinder is shown by O-P, H, N. In the plan draw the line R-C, and in the elevation of small cylinder draw the circle, as shown by the points of division 1-2-3-4, 5, 6, 7. The center is A. From the points of division drop perpendicular lines to intersect line R-C. From O as a center describe quadrants as shown, intersecting the perpendicular line drawn through O. Draw the horizontal lines, intersecting the base of the large cylinder in points 4-5, 6, 7. Through the points draw the vertical lines, intersecting the horizontal lines drawn in elevation in points a-b, c, d, b, a, giving the required curve of the intersection.

TO LAY OUT THE PATTERN.

Draw the outstretch line as shown by 1-2-3-4-5-6-7, 6-5, 4-3-2-1, through the numbers draw lines perpendicular to the outstretch line. From the points of intersection draw vertical lines, intersecting the pattern lines in points marked similar. Lines traced through the points give the shape of the pattern of the intersection.

The opening cut from large cylinder is not shown. Fig. 3 shows the intersection of a right cone by a mitre line P-1. The base of the cone is a circle, divided into points 1, 2, 3-4-5, 6-7. Through the points draw vertical lines to the ground line G-L, then continue the lines to the vertex, crossing the mitre line in points not numbered. Project those points to the outside line of the cone. The figures are spaced beyond the line 1, 2-3, 4-5-6, 7. From the vertex of the cone in elevation, and a radius equal to the slant height, describe a circle. Draw the horizontal line 7-7 through the vertex of the cone. Now from O, the vertex of the cone as a center, revolve each point of intersection to intersect the horizontal line drawn from 7 to 7. As the right cone is inclined at an angle of 60 degrees, the circumference of the base of the cone is a semicircle. Divide the semicircle into two quadrants, space point 1 as shown, space the remaining points 2-3, 4-5, 6-7 on each side as shown. From

the points draw lines to the vertex, crossing all the arcs of revolution in points, trace lines through the points, giving the required form of the pattern of the intersection of a right cone by a mitre line P-1 as shown. To find the projected view shown in the plan, from the numbers 1, 2-3-4-5, 6-7, draw lines to the center of the circle. From the points of the intersection in the mitre line in elevation draw vertical lines, crossing the lines drawn in plan giving points, trace lines joining the points, thus giving the projected view was shown in plan.

Note—When the elevation of a right cone is 60 degrees the circumference of the base in the development of the cone is always a semicircle. By this method you can lay out the pattern for a funnel without much drawing.

SCIENTIFIC COOKING.

The Ideal steam cooker of the Toledo Cooker Company, Toledo, Ohio, which is illustrated herewith, possesses many advantages which will please the up-to-date housewife.

The Ideal Cooker.

These cookers are said to be something entirely new and positively the only perfect and practical combination square steam cooker and baker on the market. With its use all kinds of cooking can be done at one time and done right. The food is cooked by the heat of steam under pressure. All the nutriment is retained and nothing can burn or dry up. Its manufacturers say it will cook a whole meal over one burner on gasolene, oil, gas or common cook stove.

Its manufacturers say that after twenty years' experience in the sale and manufacture of round steam cookers, they have perfected a square combination steam cooker and baker with doors that excels all others. These cookers are sold in all parts of the known world. Steam cooking is said to be the modern hygienic system of preparing food. It is the method adopted by the great hotels where this subject is fully understood and where the quality of food very quickly makes or mars their reputation.

When writing for further details, do not neglect to mention THE AMERICAN ARTISAN.

GOOD CHIMNEY TOPS.

Powers Brothers of Streator, Illinois, are sending a circular to the trade in which they offer a sample chimney top, fitted up with Powers' automatic chimney top fixtures. A postal giving your firm name and postoffice address will receive a prompt answer, informing you how to get the sample absolutely free if you mention THE AMERICAN ARTISAN when writing.

Powers' automatic chimney top and ventilator is constructed on scientific and mechanical lines. All bearing is where the weight is—on pivot next to cover. The wind blowing past the sides of the cover and not through the cover, creates a vacuum and thus increases the draft. This cover stops rain, smoke and soot from blowing down the chimney. It is claimed by its manufacturers to be the best braced, most durable and most perfect chimney top on the market. They were specified and used on the principal worlds' fair buildings.

NILES CORRUGATED SHEETS.

The catalogue of the Niles Corrugating Company of Niles, Ohio, is a tastefully printed and well prepared booklet, showing in a concise manner the products of this company. Among the articles shown are two and one-half inch corrugated sheets furnished in either black, painted or galvanized, number sixteen gauge or lighter. The width of these sheets is twenty-six inches and the covering width, twenty-four inches. The lengths kept in stock are five, six, seven, eight, nine, ten and twelve feet. The inch and a quarter corrugated sheets which are furnished in either black, painted or galvanized are number twenty gauge or lighter. The width of these sheets is twenty-five inches and covering width twenty-four inches. The stock lengths are five, six, seven, eight, nine, ten and twelve. The "two V" crimped roofing of the same weight and size as the inch and a quarter corrugated is furnished in the same stock lengths. V sticks are furnished if ordered at a small additional charge. They also carry in stock "three V" crimped roofing and pressed standing seam roofing, plain roll roofing, roll and cap roofing, pressed brick siding, beaded ceiling and siding, etc. This catalogue will be sent upon request to dealers who mention THE AMERICAN ARTISAN.

A HIGH CLASS ROOFING.

Stowell's asphalt slag roofing, made by the Stowell Manufacturing Company of Jersey City, New Jersey, is a roofing which has had its success founded upon merit. The felt used in its construction is said to be of the highest grade. It is saturated with natural Trinidad asphalt and will not dry up and become brittle. The mopping between plys and coating on top is said to be genuine pitch lake Trinidad asphalt. This asphalt is said to have remained exposed for ages without alteration, being practically unchangeable in the atmosphere and not liable to suffer injury by the greatest changes of temperature. The asphalt cement will not run, being little effected by the heat. An asphalt roof emits no disagreeable odor and does not injure rain water. It is said that it has been proven fireproof by practical tests.

The manufacturers are willing to ship this roofing on approval with the distinct understanding that if, after the severest comparison with all others, it does not prove the best in all details of material and workmanship, it can be returned at their expense for transportation both ways. It is put up in rolls containing one hundred and eight square feet and the price includes cement and broad-headed nails for laps. When writing do not fail to mention THE AMERICAN ARTISAN.

TINNERS VINDICATE THEMSELVES.

That the tinners of America resent the attack made upon them as a class is shown by the many and vigorous letters which have been received by THE AMERICAN ARTISAN refuting the statements which have been made concerning them by a number of employers.

This matter is well handled by the journeymen, as will be seen by a perusal of the letters quoted below. It is impossible for us to reprint at this time more than a very small percentage of the communications received.

TO THE AMERICAN ARTISAN:

I have a few question to ask Mr. Woodruff of Correctionville, Iowa, and one is, what is his scale of wages to good, sober, industrious mechanics?

Mr. Woodruff, when you look for a good, sober tinner—which no doubt you quite frequently do—do you tell him you want a man to do tinning, spouting, assortment work, slate roofing, cornice work, plumbing, steam fitting, set up farm machinery and wind mills, put in pumps, stove work and help in store when not busy or stay every night so you can go out around town? Yes, you know you do. You say in your letter to THE AMERICAN ARTISAN that you can use an all around man. Why, I know of some of you people who have even asked your tinners to "mow-back" a load of hay in your barn or wash the store windows. You no doubt have done so yourself, and then you go to poor Mr. Tinner with the startling intelligence that you will pay him $9 per week to "start on" and if he proves to be a hustler you might raise him to $10 per week. No wonder you get that kind of mechanics.

Another question: I infer by your letter that you have been trying to get a "respectable" tinner for twenty years. Did you ever in your life have one that was good? If you didn't how would you know when you did get a good one, and if you ever did have one, why didn't you keep him?

I know—just simply for the reasons stated above, and when the good one did eventually see light ahead, he simply went to where he was shown the consideration due all deserving mechanics.

Mr. Woodruff, if I wanted a job the worst way and then read the letter you wrote to our valuable paper, I should conclude from the tone of said letter that you would be a fine foreman over a first class man. You seem to love the tinner in general and may be you are mad at yourself. Anyway, I would like to work for you for about thirty minutes. I believe I could tell you what I thought about this attack in that time.

Mr. Woodruff, I worked for country dealers for eight years before I became foreman of one of the neatest little shops in central Illinois, and I know what I am saying. That is that some of you would drive the most temperate man on earth to drink.

I did not get my present position by boozing, though, and I did not get it through a man that tried to put the profession on the "bum" by mixing up several trades in one.

I might say the same thing to the man that tells about getting three or four new tinners in one day and why all got drunk at once. Did *he* ever have a good mechanic? If he didn't, how did he ever get his business worked up so that he was compelled to hire four in one day?

If he did, let me ask what became of those good ones that helped work up his business?

It is absurd, the whole question, and if every one of those men that bring up such foolish talk as *"the tinners are all booze fighters"* would give the other side of the story, it would be a different proposition altogether.

We employ six and eight tinners at this place at times and I have never had a particle of trouble of any kind, because we find the best, pay the best wages, treat a man right and have him work at the tinner's trade.

If Mr. Woodruff and the rest of the knockers would follow that policy they would have no trouble whatever. It is a fact that every trade under the sun has a certain amount of bad men, and the only job he can get is just where the good man refuses to work, and from all appearances Mr. Woodruff and any other man that has put up a "roar" runs the place where the "bad man" goes to work.

Well now, gentlemen, can't you kindly see that it's up to you to have good tinners, to advance our profession instead of standing around knocking your heads off? I would have answered that letter long ago, but I thought I would let a few more of you expose yourself to the public and then I wanted you to understand what a big bunch of fools you were making of yourselves. Now it's up to you. Get busy!

Would like to hear from some of my brothers on this subject. ROY WALKER.

Bloomington, Illinois.

TO THE AMERICAN ARTISAN:

Have noticed an attack on tinners some time ago in THE AMERICAN ARTISAN but as I have little time to spare, I thought to let it pass with contempt. Would say, however, there is something wrong with this man or his method. I have known tinners that were prohibition men and I personally know of very few located tinners that are drinking men. As for myself, I have been working at the trade for about twenty-five years and there is no man that can say that I was ever drunk, but there is a class that we call floaters that travel and do not intend to stay any place, only long enough to get the price. Then they get drunk. Yes, there certainly are good, sober tinners and lots of them, but they are at work and you cannot get them for $9 or $10 a week.

Truly yours,
FRED E. WITTBECKER.

Harlan, Iowa.

TO THE AMERICAN ARTISAN:

Replying to the article which was published in THE AMERICAN ARTISAN of March 31, about tinners, will state that if the author of that article states the facts, he certainly is up against it, but I am of the same opinion of the editor. Why should the tinners as a class of mechanics be any more addicted to booze than others? I wish it distinctly understood that I don't wish to throw dirt in any person's eyes, but I have worked with tinners whose morals were as good as the average citizen and I have worked with some "bums" who were so nice to you when they were rushed with work that you would think your job would last forever, but the tinner that boozed would hold his job the longest. Why? I don't know, only my shopmates said the old man preferred to go in the back door and they entered by the front. So far as I am personally concerned, I feel sorry for a man who is addicted to the use of liquor but I cannot condemn all of the tinners because some of them booze. I have employed a great many tinners during my time and have worked for quite a few employers and have found some very good workmen as well as good citizens, sober, industrious and strictly honest, but the tinner of to-day is not the tinner of thirty-five or forty years ago, the work is not the same, machinery is doing the work now and the ads for tinners run something like this: "An all around tinner wanted. One who has some knowledge of plumbing, steam fitting, good at furnace work, bicycle repairing, acetylene gas machines and must be willing to stay in the store when not busy." Have heard of bosses wanting their tinner to go to their residences and help the hired girl shake the carpets during house-cleaning time.

What should such an encyclopedia of knowledge be worth on the market? Cut the tinner out and I think you will sum it up about as follows: Plumber, eight-hour day, 40c, $3.20—steam fitter, eight-hour day, 45c, $3.60. Here are two of the trades that would command a salary of $40.80 and only eight hours a day at that, while these generous employers of tinners offer the magnificent sum of $10 to $12 per week for a combination man who must possess enough knowledge to fill an encyclopedia. Ain't it a wonder the employer would require a tinner to have wings so he might fly to a job and carry a box of tools, some pipe, etc.? You know it would

be so much cheaper, save the expense of a day. You know the old-time tinners, what are they?

At the bench, oh no. Not if they can help it. Is it because the salary is too large for the old boys who learned their trades, served their apprenticeship? "Oh, I guess not," said an old tinner to me not long ago, "the salary would not hurt me so much as it would to have the knowledge which the bosses are advertising for." Most tinners have better jobs as a rule and I, as one of the fraternity, am glad they have.

If you desire to publish the above, it is meant for the interest of the tinners in general and would no ill toward any one.

Yours truly,

J. H. JAQUES.

Urbana, Illnois.

NOTES AND QUERIES.

CREAM SEPARATOR BOWL DISCS.

From R. J. Schwab & Sons Company, Milwaukee, Wisconsin.

What firms manufacture discs used on the inside of cream separator bowls?

Ans.—Avery Stamping Company, Cleveland, Ohio, and de Laval Separator Company, New York City.

SOLDER FOR ALUMINUM.

From Charles Home, 780 Laforde street, St. Paul, Minnesota.

How can I solder aluminum?

Ans.—For soldering with the common soldering iron use: Tin, 95 parts, and bismuth, 5; or tin, 97 parts, and bismuth, 3. The flux to be used in all cases is either paraffine, stearin or vaseline. The articles must be well cleaned before soldering and heated just enough to make the solder adhere.

VETERINARY INSTRUMENTS.

From H. C. Westphal & Company, Poynette, Wisconsin.

Who sells veterinary instruments, such as forceps, etc.?

Ans.—Haussmann & Dunn Company, 107 S. Clark street, Chicago, and Sharp & Smith, 92 Wabash avenue, Chicago.

ROLLER SKATES.

From E. E. Hartford, Port Arthur, Texas.

Who manufactures roller skates?

Ans.—Cycle Skate & Sporting Goods Company, 37 Park street, New York City; Barney & Berry, Springfield, Massachusetts; Richards Manufacturing Company, Bloomsburg, Pennsylvania; Union Hardware Company, Torrington, Connecticut, and Samuel Winslow Skate Company, Worcester, Massachusetts.

"1900" WASHER.

From C. E. St. John Company, Melvin, Iowa.

Please tell me who makes "1900" washing machine?

Ans.—"1900" Washer Company, Binghamton, New York.

WORKERS OF 18 GAUGE IRONS.

From Rice & Frowein, Macomb, Illinois.

Please give names of concerns that work 18 gauge iron.

Ans.—Willis Manufacturing Company, Galesburg, Illinois; C. H. Wurst Company, Quincy, Illinois, and Stuber & Kuck, Peoria, Illinois.

GASOLENE LAMPS.

From C. O. Whitnell, Pierson, Iowa.

Who manufactures low pressure gasolene lamps which feed through hollow wire?

Ans.—The Bolte & Weyer Company, 223 Michigan street, Chicago, Illinois.

ITEMS.

S. Wertheimer, Sam Freshman and others have chartered the Wertheimer Iron & Metal Company at Dallas, Texas, with a capital stock of $10,000.

The Ohio Pressed Sheet Steel Company has been incorporated at Alliance, Ohio, with a capital stock of $15,000, and will manufacture sheet metal articles.

The Sanitary Metal Tile Company has been incorporated at Brooklyn, New York, to manufacture metal tile, etc. The incorporators are C. L. Weyand, A. O. Whitney, and M. M. Elliott. The capital stock is $20,000.

The American-British-Canadian Can Company has been incorporated in Patterson, New Jersey, by T. F. O'Grady, W. D. Bell and James B. Newton, with a capital stock of $100,000, for the purpose of manufacturing tin cans and metal boxes and tin can machinery.

Many dealers have probably been impressed with the follow-up letters which are being sent to the trade by the Garry Iron & Steel Company of Cleveland, Ohio. Such vigorous soliciting, backed up by products of as high a grade as that this company manufactures should undoubtedly bring good returns.

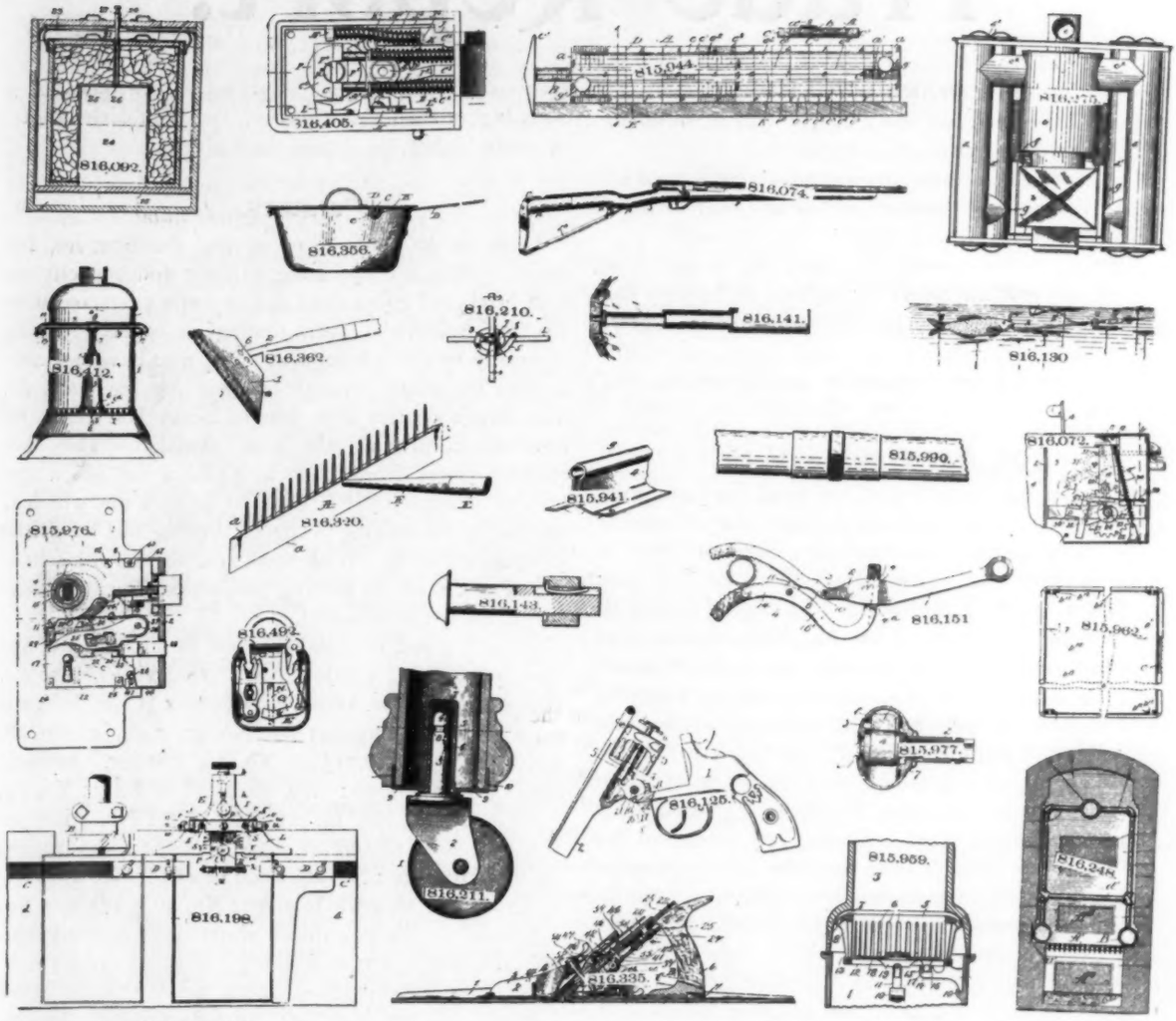
Follansbee Brothers Company, Pittsburgh, Pennsylvania, are using a four-page folder for circularization, on the first page of which is illustrated their new mill at Follansbee, Brooke county, Pennsylvania. This mill cost in its construction over $500,000, and furnishes steady employment for more than 600 experienced persons.

The Merchant & Evans Company of Philadelphia, Pennsylvania, have issued a perpetual calendar, indexed for one hundred and eighty years, from 1776 to 1955. This is nicely printed in a very small size and is very convenient for carrying around in the pocket or book. It serves well to keep before the attention of the trade the fact that this company is progressive and keeping right up to the standard which they have set in past years.

A solder for alminum has been invented, says Consul Atwell, of Roubaix, by Fernand Hecht, a mechanic of that city. With a soldering iron he can join together two pieces of the metal or join aluminum to copper, brass or iron. The invention is simple, no acids or salts being used. Mr. Hecht exhibited his process satisfactorily before the professors of chemistry of the Faculty of Science, and was also awarded a medal from the Northern Industrial Society of France for making a discovery of great importance.

P. Mosheik, 421 South Halsted street, Chicago, Illinois, is sending to the trade a blotter on which he states that eighteen years of experience as a maker of wash boilers qualifies him to make good goods at low prices. He makes forty-eight kinds of wash boilers. The number ten which is illustrated on the blotter is said to be larger and heavier than any made. It weighs twelve pounds and the bottom weighs two pounds. Full information concerning the very desirable line of goods which Mr. Mosheik manufactures will be sent by him on request of dealers mentioning THE AMERICAN ARTISAN.

NEW PATENTS.



815,941—Weather-strip. Frederick Y. Dawson, Washington, D. C. Filed April 6, 1905. Serial No. 254,100.

815,944—Rule or gage. Raiford W. Douglas, Spokane, Wash. Filed April 15, 1905. Serial No. 255,287.

815,959—Fire-pot. Robert M. Hinman, Akron, Ohio. Filed Jan. 18, 1905. Serial No. 241,635.

815,962—Hinged cover for square or rectangular sheet-metal cans or boxes. Bernard H. Larkin, Maywood, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey. Filed Oct. 3, 1904. Serial No. 226,939.

815,976—Lock and latch mechanism. Byron Phelps, Seattle, Wash. Filed Feb. 16, 1904. Serial No. 193,833.

815,977—Knob for locks and latches. Byron Phelps, Seattle, Wash. Filed March 2, 1905. Serial No. 248,176.

815,990—Hose-coupling. Wilfred B. Ward, Richmond, Ind., assignor of one-half to William C. Ferguson, Richmond, Ind. Filed July 22, 1904. Serial No. 217,611.

816,072—Time egg boiler. Horace H. Chesbrough, Seattle, Wash. Filed May 8, 1905. Serial No. 259,275.

816,074—Gun-stock. William F. Cole, Waco, Tex. Filed March 18, 1903. Serial No. 148,332.

816,092—Ice cream freezer. Fred A. Holmes, Eastport, Me. Filed Sept. 20, 1905. Serial No. 279,323.

816,130—Fish hook. Charles A. Shaw, Chicago, Ill. Filed June 30, 1905. Serial No. 267,692.

816,141—Safety razor. Robert S. Wiesenfeld, Baltimore, Md. Filed Aug. 18, 1905. Serial No. 274,766.

816,143—Nut lock. Charles A. Allen, Galion, Ohio. Filed Jan. 30, 1905. Serial No. 243,367.

816,125—Ejector mechanism for revolvers. James D. Robertson, Norwich, Conn., assignor to the Thames Arms Company, Norwich, Conn., a corporation of Connecticut. Filed Sept. 21, 1905. Serial No. 279,415.

816,151—Wrench. Seburn E. Coffman, Bagwell, Tex. Filed Jan. 19, 1905. Serial No. 241,833.

816,198—Metal cutting machine. Ferdinand Wesel, Brooklyn, N. Y. Filed Jan. 14, 1905. Serial No. 241,139.

816,210—Tie for wire fencing. Frank H. Benedict, Detroit, Mich. Filed May 18, 1905. Serial No. 261,085.

816,211—Caster. Frederick F. Bischoff, Chicago, Ill., assignor to Universal Caster and Foundry Company, a corporation of New Jersey. Filed Sept. 30, 1904. Serial No. 226,603.

816,248—Furnace John J. O'Shea, Chicago, Ill. Filed Dec. 16, 1905. Serial No. 292,110.

816,275—Furnace. Ralph S. Thompson, Springfield, Ohio, assignor to the Springfield Furnace Company, Springfield, Ohio, a corporation of Ohio. Filed Nov. 23, 1904. Serial No. 233,981.

816,320—Combined hoe and rake. Walter L. Harris, Salem, Mass. Filed Dec. 27, 1904. Serial No. 238,376.

816,335—Carpenter's plane. Alexander Kalla, New York, N. Y. Filed April 25, 1905. Serial No. 257,299.

816,356—Culinary vessel. Henry McConnell, Minneapolis, Minn. Filed Nov. 7, 1904. Serial No. 231,773.

816,362—Hoe. William A. Nyswonger, Montrose, Colo. Filed July 26, 1905. Serial No. 271,381.

816,405—Lock. Nicholas W. Webb, New York, N. Y. Filed Nov. 1, 1904. Serial No. 230,904.

816,412—Hot air heater. Samuel W. Wilt, Alvada, Ohio. Filed Jan. 12, 1905. Serial No. 240,820.

816,492—Lock. Martin Mohr, Newport, Ky., assignor of one-third to George B. Poole, Cincinnati, Ohio. Filed Sept. 13, 1905. Serial No. 278,292.

Trade Report.

HARDWARE SITUATION.

There have been but few changes, and those minor ones, in hardware prices this week.

The market holds firm and business is brisk as a result of the pleasant weather which has held forth in the Middle West.

Spring lines in especial are naturally brisk. The effect of the warm weather throughout the country has been most beneficial and jobbers are reporting a good business.

The demand for lawn mowers, poultry netting, etc., is good.

IRON AND STEEL MARKET.

It is pleasing to note that the local iron and steel situation has not been seriously disturbed by the crisis in the coal fields. Manufacturers generally have a large stock of coal on hand and will not be held back in their work, in all probability, by a lack of fuel, with the possible exception of the bar iron makers, none of whom have more than enough coal on hand to last over six weeks. The St. Louis plant of the Republic Iron & Steel Company has been closed already because of the lack of storage facilities. The only effect of the coal strike on trading which has been felt so far is an increased demand for spot shipment of coke and pig iron. The Inland Steel Company has purchased ten thousand tons of basic iron from the valley furnaces. This is about the only transaction of moment. Northern iron is softer and is now offered at $18.75 Chicago. Rail tonnage continues active. Wire rods have been advanced $1.00 a ton by the American Steel & Wire Company. New tonnage on iron and steel bars is light. At a meeting of the Western Bar Iron Association this week, the price of iron bars was reduced $1.00 a ton on lots of one hundred tons and over. The local quotation to these interests is now 1.66½c. Scrap iron shows no gain in strength and buying is slight. Sheets also continue weak. The demand for wire products is of the most vigorous kind.

WIRE PRODUCTS.

The demand from every section of the country continues strong. The leading interest has booked orders which will tax its output for three or four months to come. Stocks everywhere seem to be low and requests for instant relief are innumerable in quantity and of the most insistent kind. It is expected that as soon as the country roads are in a good condition and farmers can get into town, the consumption of wire products will exceed all previous figures. The manufacturing trade is also sending in its specifications freely and the American Steel & Wire Company is considerably behind its orders in this department. Prices are very strong, carload lots, Chicago delivery, being as follows:

Wire nails, $2; painted barbed wire, $2.15; galvanized barbed wire, $2.45; smooth annealed wire, $1.85; smooth galvanized wire, $2.15; polished staples, $2.15; galvanized staples, $2.40. Carload lots to retailers, 5 cents higher than above prices; less than carload lots, 15 cents higher.

SHEETS.

There is no diminution in the specifications for sheets. Mills are operating to their full capacity on both black and galvanized and in some cases are slow on their deliveries. New tonnage is eagerly sought, especially by the independent mills, who have not contracted for nearly enough business for the last half. The larger dealers who bought heavy last year are, however, controlling the local situation. They are quoting prices from $2.00 to $3.00 a ton below the present schedule. The rebate of $1.00 a ton which if offered by the leading producer is being met by all the independent mills. With these reservations the schedule of prices of the leading producers, Chicago delivery, is quoted as follows:

Nos. 8, 9 and 10, 1.86½c; Nos. 11 and 12, 1.91½c; Nos. 13 and 14, 1.96½c; Nos. 15 and 16, 2.06½c. Box annealed, Nos. 18-20, 2.26½c to 2.31½c; Nos. 22-24, 2.36½c; No. 26, 2.41½c; No. 27, 2.46½c; No. 28, 2.56½c; No. 29, 2.71½c; No. 30, 2.81½c. Jobbers' prices are as follows: No. 10, 2.15c to 2.25c; No. 12, 2.20c to 2.30c; No. 14, 2.25c to 2.35c; No. 16, 2.35c to 2.45c; Nos. 18 and 20, 2.50c to 2.55c; Nos. 22 and 24, 2.55c to 2.60c; No. 26, 2.60c to 2.65c; No. 27, 2.65c to 2.70c; No. 28, 2.70c to 2.75c; No. 30, 3.15c to 3.20c.

Quotations on galvanized shipments, carload lots, mill shipments, are as follows: Nos. 10-11, 2.51½c; Nos. 17-21, 2.86½c; Nos. 22-24, 3.01½c; Nos. 25-26, 3.21½c; No. 27, 3.41½c; No. 28, 3.61½c; No. 29, 3.86½c; No. 30, 4.11½c. From store, galvanized sheets are quoted as follows: Nos. 10 and 20, 3c to 3.10c; Nos. 22 and 24, 3.15c to 3.25c; No. 26, 3.35c to 3.45c; No. 27, 3.55c to 3.65c; No. 28, 3.75c to 3.85c; No. 30, 4.95c to 5c.

BILLETS AND RODS.

The active demand for forging billets continues. Prices hold strong at $35.00 Chicago, the market having been further strengthened by the recent advance in sheet bars. The added strength is shared by rods. Local mills are now asking $37.00 Chicago, which is an advance of $1.00 a ton over last week's quotation.

PLATES.

The improvement which has manifested itself in plates during the last few weeks is continuing in a strong degree. The local mill has enough tonnage on its books to run it several weeks. New tonnage is also coming forward in a satisfactory manner. Chicago mill prices for carload lots are quoted as follows:

Tank steel, ¼ inch and heavier, up to 100 inches wide, 1.76½c base; flange steel, 1.86½c base; marine steel, 1.96½c base; all full extras. Plates 3-16 incl.

thick, $2 extra; gauges, 7 to 8, $3 extra; No. 9, $5 extra. Less than carload lots, $5 extra. Store prices are very firm. We quote from local stocks: tank steel ¼ inch and heavier, up to 72 inches wide, 2c to 2.10c; 72 inches to 96 inches wide, 2.10c to 2.20c; 3-16 inch up to and including 60 inches wide, 2.10c to 2.20c; 3-16 inch 72 inches wide, 2.35c to 2.45c; No. 8, up to 60 inches wide, 2.15c to 2.25c; flange steel, 25c extra; heads, 25c extra.

MERCHANT STEEL.

The local situation remains without change. Inquiries for requirements in the last half are growing. It is believed that the present month will see an active demand for all forms of merchant steel. Mills are having difficulty in keeping pace with specifications against old contracts. Prices are quoted as follows:

Spring steel, 2.10c; sleigh shoe, flat sizes, 1.71½c; concave and convex, 1.86½c; cutter shoe, 2.35c to 2.40c; smooth finished machinery steel, 1.91½c; smooth finished tire, 1.86½c base; plow steel, 2.20c and upward, according to quality; toe calk steel, 2.21c; railway spring, 1.86½c. Cold rolled shafting, 50 per cent off in carload lots and 45 per cent in less than carload lots. Crucible tool steel, 6½c to 8c; special grades of tool steel, 13c and up.

PIG IRON.

The local market shows a slightly improved condition. Prices are not any stronger but more business is being transacted. The result of the coal strike seems to have been to create a general tendency on the part of melters to sound the market. The trade is being actively drummed for orders for third quarter business. The minimum quotation for Southern iron remains $13.75 Birmingham for number two foundry. Northern irons are softer and $18.75 has been quoted locally on number two foundry for the last half. Twenty-five cents a ton advance over this price is being asked of local consumers for quick shipment. Ten thousand tons of basic iron were purchased at the end of last month by the Inland Steel Company from the valley furnaces for delivery in the second and third quarter. The Southern product is still held at $18.40 Chicago and deliveries are very irregular. The Sloss-Sheffield Steel & Iron Company, which has been holding out for the $14.50 schedule, has withdrawn the same for the last half and is now quoting on the basis of $14.00 for number two for that period. Prices are quoted as follows:

Lake Superior charcoal	$20.00 to 20.50
Northern Foundry No. 1	19.25 to 19.75
Northern Foundry No. 2	18.75 to 19.00
Northern Foundry No. 3	18.25 to 18.75
Northern Scotch Foundry	19.25 to 19.75
Ohio Strong Softeners No. 1	20.30
Ohio Strong Softeners No. 2	19.80
Southern Foundry No. 1	18.15 to 18.40
Southern Foundry No. 2	17.65 to 17.90
Southern Foundry No. 3	17.15 to 17.40
Southern Foundry No. 4	16.90 to 17.15
Southern No. 1 soft	18.15 to 18.40
Southern No. 2 soft	17.65 to 17.90
Southern Gray Forge	16.40 to 16.90
Southern Mottled	16.15 to 16.65
Southern Silveries (4 per cent to 6 per cent Silicon)	18.40 to 18.90
Jackson Co. Silveries (8 to 10 per cent Silicon)	23.30 to 24.30
Alabama and Georgia Car Wheel	22.65
Malleable Bessemer	19.00 to 19.25
Basic Iron	18.40

Rogers, Brown & Company will say in their weekly report:

The real advent of spring during the past week not only brought out the grass and early flowers but also a fine crop of small orders for pig iron. Not great in tonnage, but numerous and for hurried delivery; a reliable index of the promising conditions of trade. Much stress has been laid on one large inquiry for foundry iron, and while the result of the negotiations is of interest, yet the decided increase of fill-in orders and inquiries for small amounts and quick shipment reveal the situation more clearly than do a few large transactions. The sound basis of a year of prosperity exists and the pessimists have no grounds for croaking. Good crop prospects, plentiful money supply, enormous railroad earnings, all contribute to a feeling of security. Consumers have not withheld from buying because of fear that the iron would not be needed, but from a desire to purchase at exactly the right time when prices are the lowest. The volume of inquiries during the past week indicates a general apprehension that possibly they may wait too long.

The partial strike of bituminous coal miners has had no appreciable effect on the iron business. A prolonged cessation of work in the anthracite district will have a tendency to restrict iron output in eastern Pennsylvania and advance the price of coke tributary to that market.

The Pocahontas district is greatly handicapped by scarcity of labor, although no strike exists there.

Matthew Addy & Company will say in their weekly report:

Many buyers who have been hibernating are coming out of their winter retirement. Inquiry is large and actual By this we mean that the buyers are not asking for prices simply to see what they look like, but they are asking for prices because they really want to buy iron. Some heavy sales have been made this week, but they are proportionately small as compared with the tonnage that is now under consideration. One pipe concern in the East has bought 8,000 tons, another order for pipe iron is for 5,000 tons, and there are in process of negotiation pipe inquiries for double these quantities. Malleable iron has been sold in large blocks. In the way of high-grade foundry iron there have been no heavy transactions, but a good general trade.

All conditions seem to be shaping themselves toward a stronger market. There are no accumulations of iron on furnace yards, and the furnaces are still well filled with orders. It is apparently certain that—unlike 1905—the consumers will need iron before the producers will be pressed for orders. Last year about this season of the year the furnaces ran out of orders and began to pile iron in considerable quantities. The result in May and June was a weak market. But this year consumption is at high-water mark, there are no surplus stocks ahead either in furnace or foundry yards, and the present buying is an indication of what is coming. The buyers now in the market are, many of them, the most astute of traders, and they have sized up the situation as one where the next change will be for the better.

Pig iron production for more than six weeks has been decreased. The furnaces have been having trouble in getting a sufficient supply of raw materials.

As for the coal strike, at the present writing it has had little or no effect on business. It is not taken seriously. As a matter of fact, it is not yet general enough to be a menace to trade.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRICK PLATES.

		Per Box
IC	14x14	$10 50
IC	14x20	7 15
IX	14x20	8 40
IXX	14x20	9 60
IXXX	14x20	11 85
IXXXX	14x20	13 10
IC	20x28	14 50
IX	20x28	16 50
IXX	20x28	18 95
IXXX	20x28	21 35
IXXXX	20x28	23 75

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$9 00
Cokes, 200 lbs	IC	20x28	9 35
Cokes, 216 lbs	IC	20x28	75
Cokes 216 lbs	IX	20x28	11 70

PIG IRON.

Lake Sup. Charcoal	$20 50@$21 00
North'n Coke Fdy., No. 1	19 75@ 20 00
North'n Coke Fdy., No. 2	19 25@ 19 50
North'n Coke Fdy., No. 3	18 75@ 19 00
Northern Scotch, No. 1	20 00@ 20 50
Ohio Strong Softeners, No. 1	20 30@ 20 80
Ohio Strong Softeners, No. 2	19 80@ 20 30
Southern Silvery, 4 to 6 per cent Silicon	19 15@ 19 40
Southern Coke, No. 1	18 40@ 18 65
Southern Coke, No. 2	17 90@ 18 15
Southern Coke, No. 3	17 40@ 17 90
Southern Coke, No. 4	17 15@ 17 40
Southern Coke, No. 1, Soft	18 40@ 65 18
Southern Coke, o. Soft	17 90@ 18 15
Southern Gray Forge	16 40@ 16 65
Southern Mottled and White	16 15@ 16 40
Malleable Bessemer	20 00
Jackson Co. & Ky. Silv ry 8% Silicon	22 30
Jackson Co. & Ky. Silvery 10% Silicon	23 30@ 24 30
Alabama Basic	18 65@ 18 90

BLACK SHEET STEEL.

No. 16	per 100 lbs.	$2 55
No. 18-20	per 100 lbs.	2 60
No. 23-24	per 100 lbs.	2 65
No. 25-26	per 100 lbs.	2 70
No. 27	per 100 lbs.	2 75
No. 28	per 100 lbs.	2 85
No. 29	per 100 lbs.	3 05

POLISHED SHEET STEEL.

No. 24	per 100 lbs.	$4 60
No. 26	per 100 lbs.	4 70
No. 27	per 100 lbs.	4 80
No. 28	per 100 lbs.	4 90

SMOOTH STEEL.

Wood's Smooth, No. 20		$2 90
" "	No. 22-24	2 95
" "	No. 25-26	3 00
" "	No. 27	3 05
" "	No. 28	3 15

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

Dickey Planished Sheet Steel ... 8½c

GALVANIZED IRON.

Regular Sizes.

No. 16, per 100 lbs.	$3 20
Nos. 18 & 20, per 100 lbs.	3 35
Nos. 23 & 24, per 100 lbs.	3 50
No. 26, per 100 lbs.	3 70
No. 27, per 100 lbs.	3 90
No. 28, per 100 lbs	4 10
No. 30, per 100 lbs	5 00
Nos. 22 & 24 x 36 in., per 100 lbs	3 70
No. 26 x 36 in., per 100 lbs.	3 90
No. 27 x 36 in., per 100 lbs.	4 10
No. 28 x 36 in., per 100 lbs.	4 30

SOLDER.

XXX Guaranteed ½ & ½	per lb. 20¼
Commercial ½ & ½	per lb. 19c
No. 1 Plumbers	17¾

SHEET ZINC.

600 lb. Casks	case, per cwt. 0 9
300 lb. Casks	per cwt. 7 9
heets	per cwt. 7 7

COPPER.

Copper ... base, 21c

TIN PIGS AND BARS.

Banca, pigs, per lb	35@35½c
Straits, pigs, per lb	35c
Straits in bars, per lb	37c

LEAD.

American Pig	$4 60@$4 62½
Bar	6½c
National (White) brands (in less than 100 lb. lots), per lb	7½c

Sheet.

Full coils	per 100 lbs. $7 00
Cut coils	per 100 lbs. 7 25

HARDWARE.

ADZES.

Carpenters'.

Triumph	40&10%
Cutmore	50&5%

Coopers'.

Barton's	20%
White's	15%

Railroad.

Triumph	40&5%
Cutmore	50%

Ship.

Triumph	33⅓&5%
Cutmore	40%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.

F. L. Waterproof, 1-10s	40c
G. D.	35c
Musket	60c

Cartridges.

Winchester Rim Fire Ctgs	50&3%
Winchester Cent Fire, Pistol and Rifle	25&3%
Winchester Cent Fire, Military and Sporting Ctgs	15&8%
Winchester Blank Ctgs. 22 cal.	$1 25
Winchester Blank Ctgs. 32 cal., C. F.	4 60
Winchester BB Caps, Rnd. ball	1 50
Winchester BB Caps, Conical ball	1 95
Winchester Cent. Fire, Military and Sporting Ctgs	15&8%

Primers.

Berdan Primers	$1 00
Winchester Primers	20%

Shells.

New Rival Empty Paper Shells, 10 and 12 gauge	25%
New Rival Empty Paper Shells, 16 gauge	20%
Repeater Empty	20%
Leader Smokeless	25%
Winchester Repeater Loaded Shells	40&5%
Winchester Leader	40-10&10%
New Rival Loaded Shells	33⅓ & 11%

Gun Wads—per 1,000.

Winchester Gun Wads	15%

Powder.

		Each
DuPont's Sporting, kegs		$ 4 50
" "	½ kegs	2 50
" "	¼ kegs	1 40
Dupont's Sm'k'less	50-lb. drum	22 45
" "	25-lb. kegs.	11 35
" "	12½-lb. kegs	5 80
" "	6¼-lb. kegs.	2 97
" "	1-lb. cans	51

Shot.

Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 70
Drop shot, B and larger sizes, 25-lb. bags, per bag	1 95
Buck Shot, 25-lb. bags, per bag	1 95
Chilled Shot, 25-lb. bags, "	1 95

ANCHORS.

Expansion Screw Anchors ... 10%

ANVILS.

Trenton, 70 to 80 lbs.	9½c per lb
Trenton, 81 to 150 lbs.	9½c per lb

ASBESTOS.

Board and Paper ... 33⅓%

AUGERS.

Boring Machine	70%
Irwin's	40&10%
Carpenters' Nut	70%

Hollow.

Bonney's—list $30.00	75&5%
Stearn's, No. 3 "	36 00

Post Hole.

Digwell, 8-inch ... per doz.	12 50
Iwan's Post Hole and Well	40&5%
Vaughan's, 4 to 9-in., per doz.	6 25

Rafting.

Snell's	50&5%

Ship.

Ford's, with or without screw	40-5%
Snell's, " " "	40-5%

AWLS.

Brad.		
No. 3 Handled	per doz.	$0 40
No. 1050 Handled	"	80
Shouldered, assorted, 1 to 4,	per gro.	1 20
Patent asst'd, 1 to 4	"	1 20
Harness.		
Common	"	1 20
Patent	"	90
Peg.		
Shouldered	per gro.	$1 20
Patent	"	60
Scratch.		
No. 1, handled	"	4 80
No. 15, socket handled	per doz.	1 25
No. 7 Stanley	"	1 80
Sewing.		
Common	per gro.	90
Patent	"	90

AXES.

Boy's Handled.		
Lippincott, 3 lb	per doz.	$6 00
Cutmore	"	5 00
Broad.		
Triumph, West, Pat		40-10&5%
Triumph, Can. Pat.		50&10%
Firemen's (handled)	per doz	$13 00
Miners' (handled)	"	6 50

Single Bitted (handled).

Silver Eagle, 3 to 4 lbs.,	pr dz.	$10 25
Cutmore " " "		8 25
Keystone " " "		9 25
Forest Clipper " " "		8 00
Premier " " "		6 50
Crescent " " "		5 75

Single Bitted (without handles).

Cutmore,	per doz. 3 to 4 lbs.	$6 25
Forest Clipper,	" "	6 00
Keystone,	" "	7 00
Perfect	" "	6 25
Premier	" "	4 75
Silver Eagle	" "	7 75

Double Bitted (without handles).

Cutmore,	3 to 4 lbs. per doz.	$8 25
Silver Eagle,	" "	9 75
Keystone	" "	9 00

The above prices on axes of 3 to 4 lbs. are the base prices.

3½ to 4½ lbs. advance 25c.

4 to 5 lbs. advance 50c.

4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$3.00	4.50	5.50	6.00

BALANCES, SPRING.

Frary's	50%
Pelouze	20%

BARS, CROW.

Pinch or Wedge Point ... cwt. $3 25

BASKETS.

Clothes.			
Small Willow	per doz.	$5 75	
Medium "	"	6 50	
Large "	"	7 25	
Galvanized Iron.	½ bu.	1 bu.	1½ bu
Per doz.	$4 00	5 50	7 00

BEATERS.

	Per doz.
Carpet.	
No. 11 Coppered Spring Wire	$1 00
No. 12 Tinned Spring Wire	80
No. 10 Woven Wire	1 10
Egg.	
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	85
No. 150 " " hotel	1 50
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths'	65%
Hand.	
8 inch ... per doz.	$8 00
10 inch "	10 00
Moulders'.	
12 inch "	13 00

BELLS.

Call.	
3 in. Nickeled Rotary Bell, bronzed base ... per doz	$5 00
Cow.	
High Grade	60&10%
Kentucky	70%
Door.	Per doz.
New Departure Automatic	$6 00
Rotary.	
3 in. Old Copper Bell	4 00
3 in. Old Copper Bell, fancy	6 00
3 in. Nickeled Steel Bell	4 50
3½ in. Nickeled Steel Bell.	5 00
Hand.	
Hand Bells, polished	50@50&5%
White Metal	50%
Nickel Plated	40%
Swiss	60&5%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50&10%
Farm, lbs.	40 50 75 100
Each	$1.10 1.40 2.00 2.75

BEVELS, TEE.

Stanley's, rosewood handle, new list	40&5%
Stanley's iron handle	40%

BINDING, OILCLOTH.

Zinc	75&10%
Brass	70%
Brass Plated	75&10%

BITS.

Auger.	
Extra Double Spur	70&10%
Snell's Car and Machine	50&10%
Triumph	50&5%
Snell's Ship	40&5%
Irwin	50&5%
Russell Jenning's	25&10%
Clark's Expansive	60%
Steer's " Small list, $22.00	30%
" " Large " $26.00	30%
Irwin Car	45%
Snell's Ship Auger pattern Car	40&5%
Center	40&10%
Countersink.	
No. 18 Wheeler's ... per doz.	$1 50
No. 20 " "	2 25
American Snail head. "	75
" Rose " "	90
" Flat "	75
Mayhew's Flat "	1 25
" Snail "	1 25
Dowel.	
New Jennings	40&10%
Gimlet.	
Standard Double Cut	60%
German Pattern ... per doz.	$0 60
German "	65
Gouge "	80
Spoon "	80
Countersink "	1 00
Reamer.	
Jenning's Square "	2 50
Standard Square "	75
German Octagon "	75
Screw Driver.	
No. 7 Common "	50
No. 1 Triumph "	1 25
No. 2 " "	1 50
No. 310 Shepardson's "	1 25
No. 1 Smith's "	1 25

BLACKING, STOVE. (See Polish)

BLADES, SAW.

Butchers'.
Standard ⅞ & 1¼ in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each $1 50

Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Cutmore.....33⅓%

Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....55&10%
Steel.....40&10%

Tackle.
Iron Strapped.....70&10%
Hartz Steel.....40&10%

BOARDS.

Stove.....40%

Wash.
Globe, single.....per doz. $2 25
" double..... " 2 75
Magnolia..... " 2 65
Crystal Glass..... " 3 40
Brass King..... " 3 40
Nickel Plate..... " 3 40
Enamel King..... " 3 40

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 1 80
No. 3, lead..... " 2 90
No. 4, " ..... " 3 40
No. 113, brass plated. " 1 10
No. N30, nickel plat'd " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, Etc.
Carriage ⅜x6 and sizes smaller and shorter.....75&5%
Carriage, sizes larger and longer than ⅜x6.....65&10&5%
Machine, ⅜x4 and sizes smaller and shorter.....75&5%
Machine, sizes larger and longer than ⅜x12.....65&10&5%
Machine, longer and larger than ⅜x12.....65&10%
Elevator.....50-10&5%
Plow.....60&10%
Stove.....80&10%
Tire.....75&10%
Wagon Box Strap.....70&10%

Mortise Door.
Gem, iron.....60%
" bronze plated.....20%

Barrel.
Cast.....60%
Wrought.....75%
" Bronzed.....50%

Flush.
Wrought.....50&10%

Spring.
Wrought.....70%
" Heavy.....70%

Square.
Cast.....50&10%
Wrought.....75%

BORERS.

Angular.
Miller's Falls.. .... per doz. $13 75

Bung.
Each.
Enterprise Mfg. Co.'s No. 1.....$1 10
" " " No. 2..... 1 40

BOXES.

Mail, No.... ..... 1 2 10
Per doz..... $3.25 4.25 17.50

Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each $1 25

BRACES.

Barber's.....50&10&10@50&10&15%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108.. ....$3 50
" No. 0110..... 3 75
" No. 08..... 2 75
" No. 010..... 2 85

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1 per doz. $9 60
" No. 2 " 10 20

Shelf.
Cast Iron, Bronzed..... 50, 10, 5%
Griffin Wrought-Steel. .... 75&10%
" Folding..... 70&10%

BROILERS.

Wire.....70&10%
Crown, Self Basting, No 80, doz $2 50

BUCKETS.

Pump Rubber.
Wychoff.....per gr. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star..... " 5 00
IXL..... " 6 75

Well.
Galv'd Qts..... 10 12 14
Per doz..... $2.90 $3.25 $3.40
Wooden, top ear, plain, per doz 3 75
" " swivel " 4 85

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only.....35-10&5%
Tinners' Iron Burrs only.....70%

BUTTS.

Cast Iron.....65-10&5%
Wrought Brass.....15%
Wrought Steel Bright.
Griffin.....75&10%
" Ball Tip.....75-10-10&10%
" " " Bronzed.....70%
Wrought Steel, Japanned.
Nos. 731 and 733.....70-10-10&10%

CALIPERS.

Double.....78%
Inside and Outside.....70&10%
Wing..... .....60%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M.....$3 75

Toe.
Shoenberger.....per ℔ 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.
Gallons..... 20 30 40
Each.. ..... $3.85 $4.50 $5.65

Milk.
Holstein.
Nos..... 300 301 302
Gals..... 5 8 10
Per doz..... $20.00 $21.00 $23.00
Chicago Pattern.
Nos..... 105 108 110
Per doz $15.00 $16.50 $18.50
Iowa Pattern.
N s..... 408 410
Per doz $19.00 $20.50
New Elgin Pattern.
Nos..... 705 708 710
Per doz..... $19.00 $20.50 $22.00
Burn Pattern.
Nos..... 700 701
Gals..... 8 10
Price..... $1.75 $2.00

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each $3 50
Diamond, Sling..... " 6 50
Myers' Imperial..... " 3 50
" Clover Leaf..... " 3 65

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list. .....60&5%
Philadelphia Plate, new list.. .. 70%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll s No. C..... ...per doz. $4.25
Wildermuth's
Nos..... 1 2 3
Per doz..... $5.60 $5.75 $6.25
Nos 4 5 6
Per doz..... $6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack .....doz. pairs $5 75
With Covert snaps. " 5 00
With slide..... " 3 25
Without slide..... " 2 85

Bright Ox Chains.
5/16 in. $7.25; ⅜ in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch..... 5/16 ⅜ 7/16 ½
Per 100 lbs.. $9.80 $7.00 $6.00 $5.20
Inch..... 9/16 ⅝ ¾ ⅞
Per 100 lbs.. $5.00 $4.90 $4.75 $4.65
Inch..... ⅞ 1 1¼
Per 100 lbs.. $4.55 $4.55 $4.65

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil

Cow Tie Chains.
American 2 toggle.....50&5%
" toggle and snap . 50&5%
" open & closed ring, 50&5%

Halter Chains.
American, new list.....33⅓&5%
German.....60&10%
Niagara, new list .....40&5
Brown's, " .....40&5%

Picture Chains.
Light Brass, 3 ft.....per doz. 60c
Heavy Brass, 3 ft..... " 75c

Pump Chain.
Galvanized, per 100 lbs.....$5.00

Safety Chain.
Brass.....60&10%

Special Steel Loading Chain.
Inch ..... ¼ 5/16 3/8
Per 100 lbs... $16.00 $13.50 $12.50

Stretcher Chains.
5/16 in. $8.50; ⅜ in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's.....70&10%

Trace Chains.
Western Standard.
6½— 6-2..... ...per pair 30c
6½— 8-2..... " 34c
6½— 8-3..... " 33c
6½—10-2..... " 38c
7 — 8-2..... " 38c
7 —10-2..... " 42c
7 —10-1 ..... " 48c
7 —10-0..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.

Wagon Stay Chains.
Inch..... ¼ 5/16 ⅜
Per 100 lbs... $6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue.....per gross 58c
Red..... " 48c
White..... " 38c
Common White Sch'l Crayon..... " 5½c

CHARCOAL

In barrels.....per bu. 22c

CHECKS, DOOR.

Blount.....30%
Sargent's.....30%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box,
Inches..... 10 12 14
Round, per doz. $2.10 $2.25 $2.75
Flat " 2.85 3.60 4.20

Cold.
Good quality.....per ℔ 10@19c

Socket, Framing and Firmer.
Barton's.....20%
Peck, Stow & Wilcox Co.....70%
For beveled back, add per doz..60c

Tanged, Firmer.
With handles.....30&5%

Choppers, See Cutters, Meat.

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood, Gal.. 5 7 10
Each.....$3.90 $4.15 $4.40
Belle, Barrel. 70%
Common Dash, Gal.. 4 5 6
Per doz.....$7.75 $8.50 $10.50
Hero.....70%
Union, Gal..... 5 7 10
Each..... $3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's.....30%

Carpenters'
Steel Bar..... ....25%

Hose.
Sherman's, brass, ¾ in., per doz..33c
Double, brass, ¾ in., " 65c

Saw Filers.
Disston's list, $30.00.....30%
Stearn's, No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's.....40%

CLAWS, TACK.

Cast, wood hdle.....per doz. 45@60c
Forged steel, wood hdle " $0.80
Solid Steel..... " 1.60
Giant..... " .60

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%

Pot.
Wire..... per doz. $0.55

Side-walk.
Steel..... per doz. $3.25
XLCR.....65&5%

CLEAVERS.

Family.
Griffin, In..... 6 7 8
Per doz..... $5.50 $5.75 $6.25

Butchers.
Beattys, Kitchen.....40%
Per doz.....$2 25

CLEVISES.

Malleable .... per ℔ 3½c

CLIPPERS.

Bolt ....$1.90@$4.75

CLIPS.

Axle.....65&5%

Damper.
Standard.....per doz. 65c
Troy..... " 38c

Hame..... " 17c

CLOTH.

Emery.
Triumph.....50&10%
B. & A.....50%

Hardware Wire—full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft..$1 85
9 to 12 " " " " 2 15
2 to 8 " galv. " " 2 70
7 and 8 " " " " 4 25

Screen Wire.
12 mesh, painted, per 100 sq. ft..$1 25
14 " " " " 1 85

COCKS AND FAUCETS.

Compression Plain Bibbs...60-10-2½%
Lever Bibb Cocks..... ....60&10&5%
Compression Hose Bibbs.....60-10%
Telegraph Faucets (new list)...50-5%
Racking Cocks (new list).....60&20%
Compression Lock C'ks(n'w list)..70%
Andrew's Brass Faucets 70%
Angle Plug Faucets, per doz....$0.85
Milk Can Faucets, per doz...$2.60-4.20
Petroleum Faucets (new list) 70&10%

COLLARS, STOVE PIPE.

Inches..... 5 6 7
Plain Tin....per gro. $1.60 $2.00 $3.00
Japanned Tin " 3.00 3.00 4.25
Lacquered Brass " 2.40 2.60 3.60

COMBS, CURRY.

Nos.... 000 11 15 39 89 108
Per doz. $0.32 .55 1.85 .85 1.10 .75
Nos 299 320 390 532 620 1400
Per doz. $1.00 .80 1.30 1.15 .70 1.35

COMPASSES.

Carpenters'.....70%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 ℔.....per ℔ 32c
1½ ℔.....29c 2 ℔.... " 28c
3 ℔ and larger..... " 26c

CORD.

Picture.
White Wire .....80-10&5%

Sash.
Baltic Braided Flax.....per ℔ 20c
Silver Lake, white 7-32 in. " 29c
" " " 8-32 in. " 29c
Keystone .....8-32 in. " 26c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....50%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&10%

COUPLINGS, HOSE.

Brass.....per doz. $1.00
Brass Plated..... " .95

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine...per doz. $22.75

CRAYONS—See Chalk

CROW BARS

Pinch or Wedge Point, per 100 lbs. $3.25

CUTTERS.

Glass
Red Devil 45%
Smith & Hemenway Co 50%
Woodward 40%
Meat
Enterprise Nos. 5, 10, 12, 22, 32 and 42 ..... 25%
No 100, list $18 00 ..... 40&10%
Universal... Nos. 1 2 3
Per doz $10.50 $12.50 $17.00
Pipe.
Stanwoods... No. 1 2 3
Each $0.85 $1.50 $4.00
Slaw and Crout.
3-knife Crout ..... per doz. $9 75
1 knife Slaw ..... " 1 65
2-knife " ..... " 2 25
Washer ..... " 7 75

DAMPERS, STOVE PIPE.

Standard ..... 50&10%
American ..... 45&10%

DIES, STOCKS AND

Discount ..... 40&5%
King's, Little Giant 33⅓%

DIGGERS.

Post Hole.
Acme ..... per doz. $8 75
Atlas ..... " 8 25
Eagle ..... " 5 75
Eureka ..... " 6 25
Hercules ..... " 9 75
Iwan's Split Handle ..... " 7 00
Iwan's Perfection ..... " 7 75
Iwan's Hercules pattern " 9 00
Ryan's ..... " 17 00
See also Augers—Post Hole.

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel painted, per doz. $7 93
1⅛ in. " " " 9 50
1⅛ in. 3-panel natural pine, fancy ..... per doz. 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock ..... 60%&65&5%
Blacksmith's Twist 60%
Breast.
Common ..... each, $2 25
Millers Falls ..... " 2 10
Hand
Goodell's Automatic.
Nos. 01 03 3 20
Per doz.. $7.75 $12.50 $14.25 $11 00
Goodell's Single Gear per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell ..... per doz. $16 50
Bit Stock.
Standard List... 60&5%@60%@10%

DRIVERS, SCREW.

Hurwood ..... 40-10&10%
Standard ..... 65&10%
Triumph ..... 70&5%
Champion 45%
" Pattern ..... 60, 10&5%
Clark's Interchangeable 30%
Edison 60%
Reed's Lightning ..... 45&5%
Goodell's Spiral ..... 50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral ..... 50&10%
Smith & Hemenway Co ..... 40&5%

EAVES TROUGH. GALVANIZED.

Territory. L. C. L.
Eastern ..... 80&2½%
Central ..... 75&10&7½%
Southern ..... 75&10
Western ..... 75&10
S. Western ..... 75&2½
Terms, 2% for cash. Factory shipments generally delivered.
See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches 5 6 7
Smooth, per doz. $0.70 $0.75 $1.10
Plan'd " 1.80 2.00 2.65
Corrugated Conductor.
Discount ..... 60&10%
Corrugated Stove.
Inches 5 6 7
Smooth, per doz. $0.70 $0.80 $1.30
Pol'd " 1.30 1.40 2.10
Plan'd " 2.00 2.20 3.00
Four-Piece Stove.
Inches 5 6 7
Smooth, per doz. 0 15 $0.52 $0.80
Pol'd " .80 1.00 1.20
Plan'd " 10 1.40 2.40

EMERY CLOTH—See Cloth.

EMERY, TURKISH.

Size ..... 5-lb. pkgs. ½ kegs, kegs
No. 60 to 150, per lb. 6c 4c 4c
Flour ..... " 5c 3c 3c

ENAMEL, IRON.

English, ½-pt. cans ..... per doz. $1 50
Nubian " " ..... " 1 80
Peerless 1 50
Keystone 1 25

EXTRACTORS, PIG.

See Forceps, Pig.

EYES.

Bright Wire Screw—See Goods, B. W
Drifting Pick ..... 60, 10&5%
Hooks and—
Brass 55%
Iron ..... 65&5%

FASTENERS, STORM SASH

Schroeder's ..... per doz. 1 40
Sensible ..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Nicholson's ..... 70&10%
Disston's ..... 75&10%
Challenge ..... 70&10%
Royal ..... 80&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior ..... per doz. $4 75
Whisson's Imp ..... " 5 25

FORKS.

These goods are sold net this year.
Barley.
Steel, New List ..... 70&10&5
Wood, 4 tines, per doz $3.25
Coal, Coke, Cottonseed 60%
Hay.
Batcheller, 2 tine ..... 60&10%
" 3 " 70%
" 4 " ..... 70&7½%
Digging ..... 70&10%
Scoop 40%
Header.
Batcheller, 3 tine ..... 66⅔&5%
" 4 " ..... 65&10%
Manure.
Batcheller, 4 tine ..... 70&5%
Ore 40%
Spading.
Batcheller ..... 80&10%

FRAMES.

Hack Saw.
Union ..... per doz. $5 75
Jenning's ..... " 6 25
Cast ..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts. 1 2 3 4 6
Each $1.10 1.30 1.50 1.80 2.30
Qts. 8 10 12 15
Each $2.95 3.80 4.50 5.20
White Mountain.
20 qt., New Platform... each $19 10
25 qt., " " " 22 60
25 qt., Sampson Power . " 43 50
40 qt., " " " 58 25

GAUGES.

Butt and Rabbet.
Stanley R. & L. Co.'s ..... 20&10%
Cream Pail.
Fairmont ..... per doz. $3 75
Marking, Mortise, etc. .....
..... 50&10%
Saw.
Atkin's, single, 55c; dbl. 80c per doz
Wire.
Disston's 25%

GIMLETS.

Discount ..... 35@40%

GLASS, WINDOW.

First two brackets ..... 90&20%
Above " " ..... 90&10%

GLASSES, LEVEL.

Stanley R. & L. Co ..... 50&5%

GLUE.

Bulk.
B Amber ..... per lb. 11 c
A White ..... " 13½c
H. S. Amber ..... " 15½c
Liquid.
Army & Navy 40%
Le Page's—
List "A" 37½%
List "B" 33⅓%
List "C" 25%

GOODS.

Bright Wire ..... 90&10%

GREASE, AXLE.

Wood Boxes.
Diamond ..... per gro. $5 50
Frazer's 9 50
Hub Lightning 5 25
Paragon 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross $9 50
3 lb. per gross 25 00
5 lb. per gross 37 00

GRIDDLES.

Soapstone ..... 40&10%

GRINDSTONES.

Family.
Inches 7 8 9
Per doz $8.25 9.00 10.50
Loose.
Per ton ..... $20 00@$21 00
Mounted.
Ball Bearing 1 2 3
Each $3.15 3.00 2.85
Common Bearing.. 1 2 3
Each $3.00 2.80 2.65

GUN WADS.
(See Ammunition.)

HAFTS, AWL.

Brad.
Common ..... per doz. $0 19
Peg.
Common ..... " 22
Patent, plain top ..... " 47
" leather top... " 52
Sewing.
Common ..... " 22
Patent ..... " 52

HALTERS.

Jute Rope ..... per doz. $0 85
Sisal Rope ..... " 1 85
Web ..... " 1 75
Leather, rope tie ..... " 6 50
" leather tie ..... " 8 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Maydole's ..... 40&10%
Engineers'.
Maydole's ..... 40&10%
Farriers'.
Maydole's ..... 35&5%
Machinists'.
Maydole's ..... 40&10%
Nail.
Triumph 40%
Quaker City ..... per doz. $3 00
Cast ..... " 1 10
Maydole's ..... 30&5%
Riveting.
Maydole's ..... 35&5%
Shoe.
Cast ..... per doz. 75c
Tack.
All Iron ..... per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid ..... " 1 55
Magnetic 1 2 3
Per doz 70c 80c $1.00
Magazine ..... per doz. $4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs 80%
5 lbs. and over ..... 80&10%
Masons'.
Single & Double Face 75%

HANDLES.

Auger.
Common Assorted ... per doz. $0 38
Peck's Adjustable ... " 2 10
Ives' " ... per set 1 35
Axe 60%
Chisel.
Hickory, Tanged Firmer, Assorted, 25c; Large, 27c per doz.
Hickory, Socket Firmer, Assorted 18c; Large, 22c per doz.
Applewood, Tanged Firmer, Assorted, 25c; large, 38c per doz.
Applewood Socket, Firmer, Assorted ..... per doz. 24c
Coal Pick ..... 50&10%
Drifting Pick ..... 50&10%
File, assorted 13c, large 16c per doz.
Hammer.
Adze Eye ..... per doz. 40c
Blacksmiths' ..... per doz. 40c@70c
Machinists' ..... " 45c@70c
Hatchet ..... per doz. 40c
Hay and Manure Fork ..... 40&10%
Hoe and Rake ..... 40&10%
Saw.
Plain ..... per doz. 75c
Varnished ..... " 80c
Screw Driver.
Assorted ..... " 37c
Large ..... " 48c
Shovel and Spade 40%

HANGERS.

Barn Door.
Challenge ..... 60&10%
Peerless ..... 70&10%
Silver Star ..... 60&5%
Storm King ..... 60@5%
World's Best 50%
Wagner's Adjustable ..... 70&10%
Warehouse 60%
Griffin ..... 70&10%
Conductor Pipe.
Griffin ..... 70&10%
Iwan's Perfection 50%
Eave Trough.
Baker's ..... per gro. $2 35
Imperial 20%
Wire 35%
Parlor Door.
Acme ..... per set $3 75
Ives' Improved ..... " 2 50
Lane's Standard ..... " 3 50
" New Model ..... " 3 10
Le Roy Noiseless ..... " 4 00
Richards' ..... 40-10&5%

HASPS.

Hinge, Wrought ..... 50&5%
With Staples—See Staples.

HATCHETS.

Challenge 40%
Blood's 50%
Cast Claw ..... per doz. $1 20@1 45
Cast Shingling ..... " $0 95@1 20
Germantown 40%
Plumb's 40%
Underhill's Star Lath ..... 40&10%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1 .... per doz. $ 9 60
No. 2 .... " 10 20

HINGES.

Blind.
Clark's Gravity ... per doz. sets 80c
Parker's 65%
Shepherd's Noiseless, for Wood casing ..... per doz. 1 05
Gate.
Clark's 1 2 3
Hgs & Ltch .... doz. $2.35 2.60 3.65
Hinges only .... " 1.70 1.90
Latches only... " .70 .75
Knuckle ..... per doz. prs. $6 00
Leed's ..... " sets 6 75
Superior ..... " prs. 9 50
Spring.
American 20%
Bommer Bros Ball B'g Floor.. 35%
Bommer Bros. Spring Hinges.. 40%
Chicago ..... 25&5%
Columbia Dbl Acting .... 40&10&5%
Gem 25%
Ideal Detachable .... per gro. $11.10
Matchless 30%
New Idea ..... per gro. $8.40
Oxford 20%
Wrought Iron.
New Lists .....
Griffin.
Light Strap Hinges ..... 65&10&5%
Heavy Strap Hinges ..... 75&10%
Light T Hinges ..... 60&10&7½%
Heavy T Hinges ..... 55&10%
Extra Heavy T Hinges .... 70-10&5%
Cor. Heavy Strap ..... 75&10%
Cor. Ex. Heavy T ..... 70&10&5%
Screw Hook and Strap.
6 to 12 in ..... per 100 lbs. $3 90
14 to 20 in ..... " " 3 65
22 to 36 in ..... " " 3 40
Screw Hook and Eye.
¾ in ..... per 100 lbs. $6 55
⅝ in ..... " " 7 60
½ in ..... " " 9 45

HOES.

Garden ..... 75&5%
Grub.
Extra 70%
Hazel ..... per doz. $5 00
Ladies' and Boys' ..... 75&10%
Mortar 80%
Planter's Eye 62½%
Weed ..... 75&15%

HOLLOW WARE—See Ware

HOOKS.

And Eyes.
Brass ..... 50&10&5%
Iron ..... 65&10%
Awning ..... per gro. $1 80
Belt.
Brown's ..... 70&5%
Jones' ..... 65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Hutmason & Beckley's, per doz. 2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle, per doz. $7.00
Chain
Incl... ¼&5/16 3/8 7/16 ½
Per 100 $7.60-8.10 9.75 11.50 12 60
Clothes Line.
Japanned.....per doz. 22c@24c
Galvanized..... " 40c
Coat and Hat.
Cast Iron .....per gro. 72c@$1 50
Gem Wire.....70¢
Conductor.
Malleable.....50&10¢@50&10&5¢
Wrought .....40&10¢@50¢
Corn.
Common, unpolished, per doz. $1 35
" polished.... " 1 80
"Cut Easy"..... " 2 75
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 4
Per doz $1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 3 00
Hammock.
With Plate.....per doz. 50c
With Screw..... " 45c
Lambrequin, or Drapery, per gro. 21c
Picture .....50¢@50&10¢
Potato and Manure.....70&12½¢
Screw.
Brass.....80&20¢
(See Goods, Bright Wire.)
Seat Spring.....per lb. 5½c

HOOPS, TUB.

Ever Ready .....per case $1 70

HOSE, GARDEN.

3 ply ¾ in. 35 lb. pressure per ft....4½c
3 " ¾ " 50 " " " 6½c
3 " ¼ " 70 " " " 6½c
3 " ¾ " 70 " " " ....8 c
4 " ¼ " 80 " " " ....8 c
4 " ¾ " 80 " " " 9½c
6 " ¾ " 125 " " " 10½c
8 " ¾ " 150 " " " 12c
Cotton ¾ in. 75 lb. pressure per ft. 6c
" ¾ " 150 " " " 8c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz..... $2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro..... $5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro..... $3.50 9.00 24.50
Nos..... 60 59 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40
Clark's
Nos..... 1 63 200 400
Per doz.... $0.40 .75 .75 1.75
Nos..... 200s 40s 3s 4s
Per doz..... $0.85 1.50 1.25 1.25
Nos.....A AB F
Per doz.....$3.00 $4.25 $2.50

IRON.

See Metals—First column.

IRONS.

Curling.
Common.....per doz. 33c@48c
Princess .....per doz. $0 65
Yale..... " 84
Oxford ..... " 1 15
Ruby ..... " 1 50
Tourist, Folding..... " 90
Pinking ..... " 70
Plane.
Wood Bench.....30&5¢
Stanley R. & L. Co. (new list)...25¢
Sad.
Charcoal .....per doz. $11 00
Common, Polished, per 100 lb. 3 25
" Nickel plated, " 4 25
Chinese Polishing.....per doz. 7 40
Laundry. No. 1 ..... " 5 75
" No. 2 ..... " 6 25
Mrs. Pott's.
No. 50 J, Enterprise...per set 79c
No. 55 J, " ... " 76c
No. 50 T, " ... " 82c
No. 55 T, " ... " 79c
No. 50, Howells..... " 74c
No. 55, " ..... " 71c
Tailors' Sad.....per lb. 4½c
" Geese ..... " 4½c
Tuyere.
Single Duck Nest.....per doz. $5 25
Double " " ..... " 6 25
Sutton .....each 2 60

JACKS.

Locomotive.....75&5¢
Wagon.
Oliver.
Nos 0 00
Each..... $0.60 $0.85
Standard.
Nos..... 1 2
Each..... $0.60 1.00
Wilcox.
Nos..... 1 2 3
Each.....$0.85 1.20 2.90

KETTLES.

Brass.....15¢
Cauldron .....45¢
Copper.....per lb. 27c
Maslin .....66⅔¢
Sugar .....50&5¢

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, dz. $3 85
California.....3 4
Cooper's Hoop.....15
Corn.
Clipper.....per doz. $1 7
Disston's..... " 2 75
Earle's..... " 3 0
Woodford..... " 2 25
Drawing.
Standard .....70¢
Adjustable.....15¢
Barton's Carpenters'.....10¢
Folding Handle.....25&5¢
Hay.
American, Sickle Edge..doz $10 50
Canton, Sickle Edge..... " 8 25
Heath's ..... " 8 00
Iwan's Sickle Edge..... " 9 50
Iwan's Impv'd Serrated.. " 10 00
Lightn'g, Holt's Genuine " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point " 8 50
Hedge.
Challenge .....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single ..... " 40
" Double ..... " 50
Streeter, 4 Blade..... " 1 30
" 6 Blade..... " 2 00
Putty.
Common..... " 60@1 00
Lander's.....per doz. $1 40@1 7
Scraping.
Beech Handle.....75@1 00
Lander's.....5 25@6 00

KNOBS.

Door.
Mineral .....per doz. $0 73
Porcelain ..... " 83
Jet..... " 88

LADDERS.

Common Long.
Per ft .....9c@14c
Extension.
Per ft 12c
Step.
Common, per ft.....6½c
" with Shelf, add 10c.
Keystone.....15c
Triumph, per ft 20c

LANTERNS.

Bull's Eye Police.
3-in. Flash Light.....per doz. $6 00
2¾-in. Regular..... " 4 00
3-in. Regular..... " 5 00
Tubular.
Prisco.....40&10&5¢

LEADERS, CATTLE.

Nos 1 2 3
Per doz.....$0 55 $0 70 $2 75

LEATHER, LACE.

Cut.....40&10¢
Sizes.
Ex. Quality.....per sq. ft. 24c

LEATHERS, PUMP.

Valve and Plunger .....45¢

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
" Nickeled " 5 00
Transom.
Payson's.....80¢

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos..... 4 6 7 8 9
Per gross $1 50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Masons', in 100-ft. hanks..doz... 80c
Clothes.
60-ft. Jute.....per doz. $0.80
72-ft. " ..... " 1 00
60-ft. Sisal ..... " 1 30
72-ft. " ..... " 2 00
50-ft. Cotton ..... " 1 00
50-ft. Braided Cotton " 1 10

LINING, STOVE.

In Bricks.....per crate 42c

MACHINES.

Boring.		Without Augers	With Augers
Angular.....	per doz.	3 00	4 40
Upright....	"	2 60	4 00

Leather Riveting.
Chicago, Pomeroy....per doz. $0 00
Excelsior ..... " 2 00
Handy ..... " 2 00
Little Giant..... " 3 00
Pony, Pomeroy..... " 7 20
Washing.
Boss 1 2 5
Per doz.....$55.20 61.80 68.40
Winner.....per doz. 54 00
Keystone ..... " 54 00
Round Wayne..... " 26 50
U. S. Steel ..... " 60 00
Advance, f.o.b. Chic'go " 24 50

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small ...per doz. $5 00
" " Medium. " 5 75
" " Large... " 6 75
Round Hickory..... " 1 75
" Lignumvitæ .. " 2 85
Square Hickory..... " 1 75
" Lignumvitæ.. " 3 40
Tinners'.
Applewood ..... " 1 70
Hickory..... " 75@1 15
Hickory Sheet Iron.. " 1 30

MATS.

Door.
National Rigid.....50, 10&5¢
Queen Flexible.....50¢
Stove.
Standard Quality...per gross $2 90
Best " (Pure) " 4 00
Wire Covered Asbestos, Ex.
Heavy .....per doz. 1 00

MATTOCKS.

Warwood .....70¢
Extra .....60¢

MAULS.

Iron. lbs.	10	13	16	18	21
Per doz.	$3.00	3.60	4.50	5.00	5.75
Wood face, lbs.		10	12	14	
Per doz		$5.00	5.50	6.00	

Wood Choppers'.
Lake Super'r & Oregon Pat.. 80&5¢

MEASURES.

	½ pk.	1 pk.	½ bu
Galvanized. per dz.	$2.00	$2.75	$3.60
Japanned... "	1.50	2.20	2.90

METAL.

Babbitt.
Alm .....per lb. 7½c
Best..... " 13 c
Common, No. 4..... " 6½c
Copper Mixed ..... " 19 c
Tony ..... " 9½c
See Metals—In first column.

MICA.

First Quality.....25¢
Second Quality.....35¢

MILLS, COFFEE.

Enterprise .....25¢
Parker.....50¢
Arcade .....50¢

MITRE BOXES.

See boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.

Pounds.....	¾	1	1¼	2
Per dozen...	$2.00	2.35	2.65	3.25

MOWERS, LAWN.

Ball-Bearing.
Inches..... 14 16 18 20
Each $6.25 6.75 7.25 8.00
Cheap Grades.
Inches..... 12 14 16 18
Each $2.25 2.25 2.35 2.50
Clipper .....50, 10&10¢
Yale.
Inches..... 14 16 18 20
Each..... $3.50 3.75 4.00 4.35
Philadelphia.
All Styles Except A & E 60, 10&10¢
Style A.....50&10¢
Style E, High Wheel..60, 10&10¢
Drevels.....50¢
All Day.....Net Price

NAILS.

Cut Steel.....rates, $2 10
Horse Shoe.
Ausable .....55&5¢
Capewell .....15¢
Perfect .....55&5¢
Putnam .....20-5¢
Star .....50¢
Picture.
Brass Heads .....60&10¢
Judd's.....60&10¢
Brads.....85&10¢
Furniture .....60&10¢
Wire.
Small Lots.....$2 10
Carload " 2 05
Cement Coated..... 1 95

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized before Weav'g.80&10&5¢
" After Weaving...80&10¢
Cut Pieces.....65&5¢

NIPPERS.

End Cutting.
Stubb's Pattern. Ins. 5½ 6
Per dozen $4.00 $4.25
End and Diagonal Cutting.
Swedish Side.....75¢
Utica Drop Forge & Tool Co...60¢
Hoof.
Heller's .....40&10¢
V. & B.....55-5¢

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 15
Magic..... " 3 15
Mystic..... " 2 85

NUTS, HOT PRESSED.

Square Blank.
In. ¼ 5/16 ⅜ 7/16 ½ ⅝ ¾
lb. 9c 7½c 6c 5½c 4¾c 4½c 4½c
Square Tapped.
In. ¼ 5/16 ⅜ 7/16 ½ ⅝ ¾
lb. 12c 10c 7½c 6¾c 6½c 5½c 5½c
For 5 lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern
Brass and Copper.....50¢
Zinc .....60¢
Engineers'
Cannon .....55¢
Tin.....per doz. $2.00@$2.25
Machine.
Common .....per doz. $0 50
Copper Plated Steel.. " 85
Malleable Iron.....60, 10&5¢
Jappaned..... .. ..65@75c

OPENERS.

Box.

Inches.....	10	12	14
Flat ..per doz	$2.85.	3.60	4.15
Round "	2.10	2.25	2.75

Can.
Delmonico.....per doz. $1 30
Never Slip..... " 0 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Home.....per doz. $11 50
Economy..... " 4 90
Fireside..... " 10 50

PADLOCKS.

Standard Wrought .....70, 10&5¢
Champion .....50¢
Eureka.....40, 10&5¢
Yale .....60&5¢

PAILS.

Cream.
14-qt., without Ga....per doz. $2 50
20-qt., " " .... " 3 00
20-qt., with Gauge.... " 3 50
Sap.
10-qt., Galvanized.....per doz. 1 60
12-qt., " ..... " 1 85
Stock

Galvd. qts.	14	16	18	20
Per doz.....	$3.50	3.75	4.50	5.00

Water.

Galvanized, qts	10	12	14
Per doz	$1 50	1.70	1.95

Wood.
Cable, 2-Hoop..... .per doz. $1 70
" 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop..... " 1 60
" 3-Hoop..... " 1 80

PANS.

Dripping.....60&5¢
Fry.
Common.....75&10¢
Acme .....70&10¢
Roasting.
Paxton.

Nos.....	1	2	3	4
Per doz..	$4.75	$5.75	$6 50	$7.50
Neverburn..	4.00	4.50	5.50	6.50

Savory No. 200 .....per doz 8.50

PAPER.

Building.
Plain .....per 100 lbs. $1 10
Tarred..... " 1 20
Tarred Felt..... " 1 65
No. 20, Red Rosin .....pr roll 40
No. 30, Red Rosin ..... " 55
Sand and Emery.
Challenge.....50&10¢
B. & A.....50¢
Wrapping
Drab Floor.....per lb. 3½c
Rag..... " 2½c

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable ..... " 6 00
White Mountain .... " 4 75
Reading ..... " 6 50
Potato.
Goodsell's Saratoga 10½ in. doz. 6 50
" " 5 in.. " 5 50

PICKS.

Adze Eye Ore .....65&5¢
Drifting and Poll Picks.....70¢
Extra Railroad .....70&5¢
Surface.....65&5¢

PINCERS.

Carpenters', cast steel.
In..... 6 8 10 12
Per doz...$1 80 $2 40 $2 80 $3 50
Blacksmith's .....45¢
Heller's .....40¢

PINS.

Clothes.
Common.....per gro. $0 14
Hoyt's..... " 31
U. S..... " 70
Picket.
Fluted 15 in.....per doz. $0 70
" 21 in..... " 1 60
Spiral ..... " 1 90

PIPE.

Conductor.
Territory.
Eastern.....70&10¢
Central.....70&2½¢
Southern .....65&10¢
Western.....65&10¢
Southwestern.....60&12½¢
Lead.
Full coils.....per ℔. 7½c
Cut " ..... " 7¾c
Stove.
Acme—In. 5 6 7
Smooth, per jt.. 8¾c 9¾c 10¾c
Planished " .. 32 c 33 c 43c
Peerless—Smooth. 7¾c 8 c 9¾c
Polished 14½c 15½c 18c
Plan'hed 28 c 31 c 35½c
Made-up—In. 5 6 7
Smooth 7½c 8c 9¾c
7 to 6 in. Smooth Tapers, pr jt..13c
6 in. Smooth T's..... " ..27c
7 to 6 in. Planished Tapers.....45c
"Yale" Pipe—Stove—
Crated—Nested—Polished Steel.
5-in., 28 ga., Pat. Lck...jt, $0 10
6-in., 28 ga., Pat. Lck...jt. 10½
7-in., 28 ga., Pat. Lck...jt. 14½
7 to 6. 28 ga., Pat. Lck...jt. 16
Duplex—Uniform Blue Steel—
5-in., 28 ga., Pat. Lck...jt. 08¾
6-in., 28 ga., Pat. Lck...jt. 09½
7-in., 28 ga., Pat. Lck...jt. 12
7 to 6. 28 ga., Pat. Lck...jt. 13½
Wrought Iron Gas Pipe
⅛@¼-in., black.....discount, 60¢
⅜@½-in. ..... " 60,10&5¢
¾-in. to 6-in.. black... " 70¢
7 " 12 " .. " 62½¢
⅛@¼ galvanized " 42¢
⅜@½ " " 50¢
¾ " 6 " " 57½¢
7 " 12 " " 45¢

PLANES.

Sargent Iron Bench.....60&10¢
Stanley Iron Bench.....25&10¢

PLANTERS.

Corn.
Monitor.....per doz..$7 75
Triumph..... " .. 6 00
Segment..... ..... " .. 9 00
Potato.
Acme.....per doz..$6 25
Challenge..... " ..11 00
Pingree..... " .. 2 25
Eureka ..... " .. 6 25

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Button's—In. 4½ 6 8 10
Per doz.....$2.40 $2.80 $3.70 $4.60
Button's Pattern.
In. 4½ 6 8 10
Per doz.....$2.00 $2.40 $3.00 $4.0
Cutting.
Bernard's.....40¢
Lodi..... ....60&10&5¢
End and Diagonal Cutting.
Swedish Side .....70¢
Utica Drop Forge & Tool Co....50¢
Fencing.
Farmers' Choice....per doz ..$8 00
Russell's..... " .. 8 25
Flat and Round Nose.
Bernard's.....40¢
German .....65¢
Lodi.....55¢
Paragon.....50&10¢
Gas—In. 6 8 10 12
Per doz...$2.35 $3.00 $4.00 $5.00

Tinner's.
Hollow.... .....40¢
Solid..... each..5½c

PLUMBS AND LEVELS.

Common.....75¢@75&10¢
Cook's.....40¢
Davis' Iron.....25¢
Davis' Inclinometer,.....15¢
Stanley's.
Nos. 00 0 2 3
Per doz..$4.50 $5.00 $7.35 $8.40
Nos. 30 25 50 35
Per doz.$12.00 $17.00 $17.00 $12.00

POINTS.

Drive Well Points.....75&10¢

POKERS—STOVE.

Wr't Steel, str't or bent, pr doz.$0.55
Wr't Steel, wood hand'l " " .80
Nickel pl'td, coil hdl's.. " " .65

POKES—ANIMAL.

Brown's, wr't steel, per doz. $5.00@6.00

POLISH.

Metal.
Pride of the Bar.....$1.60
Putz Cream.
Pts. 1-6 ¼ ½
Per doz.....$0.80 $1.10 $1.65
Pts. 1 2 4 8
Per doz $2 75 $4.50 $7.50 $12.50
White Silk half pints, per doz.$2.00
White Silk, 6 oz. cans, per doz. 1.00
Wondershine
Pts. 1-6 ¼ 1 2
Per doz.....$0.70 $1.35 $2.25 $3.00
George William Hoffman.
U. S. Metal Polish Paste, 3 oz. boxes, per doz., 50c; pr. gro ..$4.55
½-lb. boxes, per doz..... 1.20
1-lb. boxes, per doz 2.25
U. S. Liquid, 8 oz. cans, per doz., $1 25; per gro.....12.00
Barkeepers' Friend Metal Polish, per doz., $1.75; per gro..18.00
Shoe.
M. D. C.....per doz. 36c@50c
F. C. O..... " 40c
T. M..... " 55c@$1.75
Imperial.....per gr.....$5.00
Stove.
Black Eagle, 1 ℔ cans. pr gr..$15.00
Black Silk—
5 ℔. pail.....$0 70
Paste, 5 oz. cans....per doz. 75
Paste, ½ lb. cans.... " 1 00
Liquid, ½ pint cans..per doz $1 00
Liquid, 6 oz. cans... " 75
Steel Range Gloss.... " 1 75
Blackene, 1 ℔ cans....pr gro. 13 00
Black Jack, ¾ ℔ cans.. " 9 25
Dixon's Carb. of Iron.. " 5 7
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1 qt. per dz, ..$1 00
Square, 1½ qt..... " 1 25
Square, 2 qt..... " 1 50
2 qt. Reversible..... " 1 60

POTS, FIRE.

Bernz.....each $3 85
Clayton & Lambert's, ea..$4 75@6 25
Gate City.....each 6 25
Gem.....ea..$6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co....25¢
Henis .....per doz. $2 00

PRIMERS.

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10¢
Water's Improved..... " 80&5¢

PULLERS.

Cork.
Daisy.....each $3 10
Phoenix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz..$10 50
Blackhawk..... " .. 6 50
Morrill's ..... " .. 10 50
Tack—Giant ..... " .. 40

PULLEYS.

Awning—Jap'd.....60¢
Clothes Line.....50&10¢
Hay Fork.
Iron Wheel, 5 in.....per doz. $1 75
Wood Wheel, 6 in.... " 1 75
Wood Wheel, 6 in.. pass knot..... .... " 2 15
Hot House—Jap'd .....50&10¢
Screw..... " .....60¢
Side ..... " .....50&10¢
Sash.
Clark's .....per doz $0 36
Common Sense, 2 in .. " 22
" Pattern, 2 in .. " 30
Empire..... " 30
Ideal..... " 30
Steel..... " 25

PUMPS.

Pitcher Spout.
Nos. 1 2 3 4
Each .....$.90 1.00 1.10 1.40
Spray.
Blizzard.....per doz. $14 50
Cyclone, tin..... " 3 40
" copper ..... " 6 75
Daisy..... " 9 00
Little Giant.....each 2 25

PUNCHES.

Conductors'.
No. 22.....per doz. $2 25
Machine.....per ℔. 19
Saddlers'.
Common.....per doz. 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 ℔s. 2 35

RAIL.

Barn Door.
Crescent T..... 4½c
Double Flange..... 2½c
Matchless, 1 in..... ..... 3c
Match'ess, 1½ in 3½c
Storm King..... 4c
World's Best 7c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron... " 8½c

RAKES.

Coal or Wood.....per doz. $5.20
Garden.
Steel.....75&10¢
Steel, bow.....75&7½¢
Malleable Iron, heavy.....70&10¢
Hay.
Wood.....$1.50@$2 00
Lawn—Wood.
XXX .....per doz. 3 00
Automatic ..... " 6 00
Hustler ..... " 3 50
Jumbo, 36 teeth..... " 6 00

RASPS—See Files.

RAZORS.

Bo-ras-ic .....50¢
Red Devil.....50¢
Tree Brand.....50¢

REGISTERS.

List December 5, 1904.

Black and White Japanned. .70&10¢
Nickel Plated.....70&10¢
Electroplated, Brass, Bronze or Copper.....70&10¢

RINGS

Bull.
Copper..... 2½ in 3 in.
Per doz..... $1.10 $1.35
Rea's Improv'd Self Piercing copper, pr d'z. 1.60
Steel per doz.. .85 .95
Nickel Plated 1.35 ...
and Ringers—Hog.
Blair's Rings.....per doz. $0 45
Blair's Ringers..... " 60
Brown's Rings..... " 50
Brown's Ringers..... " 80
Champion Ringers... " 1 60
Hill's Ringers..... " 45
Hill's Ring, boxes..... " 40
Major Rings ..... " 60
Perfect Ringers..... " 80
Wolverine Rings..... " 1 30
Wolverine Ringers... " 60
Fruit Jar.
White.....per ℔ 30c
Key.
Split, round.....per doz. 17c
Split, square..... " 32c
Ball, Round..... " 32c

RIVETS.

and Burrs.
Copper Belt.....40¢
Coppered Iron .....75¢
Tinners' .....70¢
Hame .....per ℔. $0 10
Slotted Clinch.....per dcz. 40c@45c
Tubular.
Nos. 1 and 2 assorted sizes, doz. 45c

RIVET SETS.

See Sets.

ROPE.

Cotton.
¼, 5-16-in. Com. on reels..per ℔. 11½c
¼, 5-16-in. Com. in coils .. " 12c
¼, 5-16 Imperial in coils . " 21c
Sisal.
Rates.....10½c
Premier, rates .....per ℔. 8½c
Pure Manila.
Rates..... " 13½c
Premier, rates ..... " 12½c

RULES.

Boxwood.....70¢
Ivory .....45&5¢

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Atkins'.....40¢
Disston's .....30&5¢
Jackson's.....30&5¢
Butchers'.
Atkins' Nos. 1, 2, 3, 5, 7..... ..40¢
Atkins' Nos. 77, 78.....60¢
Atkins' No. 79.....50&5¢
Disston's.....40&5¢
Circular.
Atkins'.....50¢
Disston's.....50¢
Hiles'.....50&10¢
Compass.
Atkins' Nos. 2 & 3 .....40¢
Atkins' Nos. 4 & 5.....40&10¢
Common.....per doz. $1.35@$1.60
Disston's.....25&7½¢
Cross-Cut.
Atkins'.....35&40¢
Disston's..... 40&10¢ &50¢
Dehorning.
Atkins'.....per doz. $5 50
Disston's..... " 5 75
Hack.
Atkins'.....40¢
Disston's.....25¢
Keystone.....30¢
Hand and Rip.
Atkins'.....40¢
Brown's .....30&7½¢
Disston's No. 7.....35&5¢
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120.....30&5¢
Keystone.....35&5¢
Enterprise, hand.....per doz.$5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....30&5¢
Atkins' No. 5.....40&10¢
Atkins' No. 6.....40¢
Kitchen.
Atkins'.....50&10¢
Sterling.....25¢
One Man .....50¢
Panel.
Atkins'.....40&10¢
Brown's.....30&7½¢
Disston's No. 7.....35&5¢
Disston's No. D100.....30&5¢
Pruning.
Atkins' Nos. 1, 2 & 3.....35¢
Atkins' Nos. 5, 6 & 7.....40¢
Brown's.....25&7½¢
Disston's.....30&5¢
Wood.
Atkins'.....40&10¢
Common.....per doz. $4 50
Forest Clipper..... " 5 00
Happy Medium..... " 7 00
Perfection ..... " 8 00
Crescent..... " 5 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 25
" painted.... " 1 70

SCALES.

Counter.
Pelouze..... .....40&10¢
Platform.
Osgood.....50¢

SCOOPS.

Grain.
½ Bu. "Hercules,"..per doz. $13 75
1 " " " 15 00

SCRAPERS.

Box.
Stanley's Adjustable, per doz.$3 00
Triangular..... " 4 00
Cabinet.
Cast Steel..... " 60c@75c
Stanley's No. 80..... " $7 80
Road.
Cubic ft. 7 5 3
Without runners, ea.$4.00 3.75 3.50
With runners.... " 4.25 4.00 3.75

SCREWS.

Bench.
Iron, in,..... 1 1¼ 1¼
$3.25 $3.75 $4.50
Wood, white maple..per doz. $3 50
Hand—Wood.....30¢
Hand Rail.....80&10¢
Jack .....70&10&10¢
Lag or Coach—all sizes, gimlet pointed.....75&5¢
Saw—Centennial.
Nos. 1 2 3 4 5 6
Per doz. 18c 20c 26c 30c 23c 25c
Wood.
F. H. Bright.....87½&10&10¢
R. H. Blued.....85&10&5¢
F. H. Jap'd.....82½&10¢
F. H. Brass.....85&10&5¢
R. H. Brass.....80&10&5¢
R. H. Nickel Plated.....80¢

SCYTHES.

Clipper, grain.....per doz. $9 50
Clipper, grass..... " 7 75
Vulcan ..... " 7 25
Honest Dutchman..... " 7 00
Challenge ..... " 8 00

SHAVING SETS.
Smith & Hemenway.....60¢

SETS.
Nail.
Round, common.....per doz. $0 33
Square, " ..... " 42
Octagon " ..... " 33
Square, Triumph.... " 90
Cup Point, knurled, pr. doz. 90c@$1.00
Rivet.
Farmers'.. .....per doz. $1 20
Tinners'.....50&10¢
Saw.
Aiken's Pattern.....per doz. $3 50
Common Lever..... " 1 20
Disston's Monarch... " 6 50
" X Cut..... " 12 00
German ..... " 1 05
Morrill's Old Style... " 5 00
" Pattern.... " 3 75
Leach's..... " 4 80
Nash's Hand..... " 3 15
" X Cut..... " 4 20
Stillman's Lever.... " 1 30
" X Cut..... " 2 50

SHARPENERS, SKATE.
Diamond.....per doz. $1 60
Smith & Hemenway.....20¢

SHAVES, SPOKE.
Iron.....per doz. $1.35@$2.75
Wood..... " 2.75@ 4.75
Bailey's.....50&5¢
Goodell's.....15¢
Stanley's Universal.....30&5¢

SHEARS.
Pruning.
Buckeye, No. 1.....per doz. $5 75
" No. 2..... " 7 40
California Pat. 9 in.. " 3 20
" " 10 in.. " 4 00
Draw Cut, No. 3..... " 13 75
" " No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 $2.10 $2.90 $2.80
Star.....per doz. $4.00
Sheep—No. BBA.
Inches..... 6 6½ 7
Reg. Grip..... $11.25 $11.50 $12.00
Nar. Grip, doz. 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.
Common.
Inches..... 3 4 5
Per set..... $0.34 $0.42 $0.70
Hatfield's.
Per set..... .75 1.00 1.60

SHELLS—See Ammunition.

SHELLERS, CORN.
Union..... per doz. $6.75

SHIELDS.
Expansion Bolt Shields.....50&10¢

SHOES.
Conductor .....60&10¢

SHOE POLISH—See Polish.

SHOT—See Ammunition.

SHOVELS AND SPADES.
Coal.
No. 2 Woodford .....per doz. $5 50
No 182. ..... " 6 00
Ames' new list.....Discount 12½¢
Per Doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye .... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50¢
Railroad, Etc.
Black Diamond .....per doz $10 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames' new list.....Discount 12½¢
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... . " 3 00

SINKS.
Cast Iron.
Painted..... 60¢
Enameled, White.....65¢
Wrought Steel.
Painted, new list.....40 10&5¢

SLEDGES—See Hammers.

SNAPS, HARNESS.
Champion.....33⅓¢
German Pattern.....30&5¢
Judd's Pattern.....50¢

SNATHS.
Double Ring, Bush.....per doz. $5 50
Patent Loop " .... " 5 75
" " Grass..... " 5 25

SNIPS, TINNERS'.
Heinisch's.....40&5¢
National.....40&10¢

SOLDER—See Metals.

SPRINGS, DOOR.
Perfect.
Nos..... 1 2 3 4
Per doz.... 30c 35c 40c 45c
Reliance.
Per doz.....light $1.25; heavy $2.50
Star.
Per doz..... light 90c; heavy $1.35
Torrey's.....per doz. $1.35
Warner's No..... 11 13
Per doz..... 75c $1.35

SQUARES.
Steel and Iron.....70&10¢
(Add for Bluing, $2.50 per doz., net)
Mitre.
Stanley's No. 12.....60¢
Try.
Stanley's No. 20, new list...45&10¢
" No. 12 and 14.....55¢
Try and Bevel.
Stanley's .....55&5¢
Try and Miter.
Fox's.....per doz. $5.75
Winterbottom s.....70¢

SQUEEZERS, LEMON.
Common Wood.....per doz. $0 70
Porcelain Lined, Wood. " 1 25
Boss, malleable iron.... " 75
Iron Frame, p'rel'n bowl " 2 25
" glass bowl... " 2 50
Little Giant, tin'd iron. " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated .... " 4 50

STAPLES.
Blind.
Barbed.....per ℔ 9¼@9¾c
Butter Tub..... " 8@8½
Fence—less than carload.
Polished.....per 100 ℔ $2 30
Galvanized..... " 2 60
Netting.
Galvanized..... ...per 100 ℔ 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....85&10¢
Extra heavy..... .....85¢

STEELYARD.
Discount 25¢

STONES.
Axe.
Hindostan.....per ℔ 5½@7c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60¢@60&5¢
Oil—Mounted.
Arkansas Hard.....per doz. $23 00
Arkansas Soft..... " 15 50
Hindostan .....per ℔ 6¼@6¾
Oil—Unmounted.
Arkansas Hard.....per ℔ $2 05
Arkansas Soft..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita ..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End..... " 3 75

STOPS, BENCH.
Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.
Common.....per doz. $0 40
Crown ..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated.. " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards.

STOVE POLISH—See Polish.

STRAPS.
Scoop.....per doz. prs. $1 85
Skate..... " " 60@70c

STRETCHERS.
Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's..... " 6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety ..... " 10 00
Star Lever..... " 6 25
Star Tackle Block.... " 9 50
Warner's..... " 6 25

SWIVELS.
Malleable Iron.....per ℔ 6¼c
Wrought Steel.....per gro. $4 50

TACKS.
American Cut.....90&5¢
American Wire.....85&25&10¢
Bill Posters Cut.....90&30¢
Blued Carpet.....90&10¢
Tinned Carpet.....90&10¢
Gimp.....90&10¢
Upholsters' Cut.....90&20¢
Upholsters' Wire.....90&10¢
Double Pointed.....90&20¢
Copper.....per ℔ 32c
Canvas Nails.....75&5¢
Clout Nails .....75&5¢
Hungarian Nails.....80&5¢

TAPES, MEASURING.
Asses' Skin.....35¢
Bend Leather.....15¢
Patent Leather.....15¢
Lufkin s Steel.....25¢
Lufkin's Metallic.....25¢

TEE BEVELS—See Bevels.

THERMOMETERS.
Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.
Bale.
Single Loop.....80&10¢
All other kinds.....70¢
Cow—See "Chains."

TOOLS, SAW.
Atkins' Dexter.....per doz. $4 50
Atkins' Excelsior..... " 6 50
Disston's Universal.....40¢
Minature.
Smith & Hemenway.....25¢

TRAPS
Fly.
Balloon.....per doz. $0 90
Harper's..... " 1 00
Game.
Newhouse.....40&10¢
New Victor.....70¢
Mole.
Reddick's.....per doz. $5 20
Mouse and Rat.
Wood Choker...per doz. holes $0 11
Tin Choker..... " " 10
Delusion.....per doz. 1 00
Marty Rat..... " 6 00
Marty Rat Imitation.. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 25

TROWELS.
Brick.
Standard.....40¢
Brade's.....15&5¢
Disston's.....30¢
Rose's.....25¢
Plasterers .
Standard .....40¢
Disston's..... 25¢
W. & McP.....25¢

TRUCKS.
Bag.....each $2 00
Handy..... " 1 70
Warehouse .....60&5¢
No..... 1 2 3
Half Ironed.... $3.00 $3.85 $5.50
Full Ironed.... 3.45 4 50 6.45

TUBS, WASH.
Standard. Ex.
Nos..... 3 2 1 large
Per doz....$5.00 $6.00 $7.00 $ 9.50
Dowell.
Per doz.... 5.35 6.35 7 00 9.50
Cedar
Per doz.... 6.10 7.10 7.90 10 80
Indurated.
Per doz.... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz..... $4.75 $5.25 $5.85

TWINE.
Per ℔
3-ply Cotton Wrapping.....19c
4 " " " 19c
4 " " Extra Wrapping.....22c
4 " " ' Hvy. Wrapping..20c
4 " " Wrapping on tubes. 22c
3 " " ' cones.. 20c
4 " " " " " ..20c
India Hemp, ¼-lb. balls..... ....17c
" ' ½-lb. " 16c
" " ¼-lb. " .....doz 63c
2-ply " ¼-lb. " 11c
3-ply ' ½-lb. " 10c
Jute Wrapping, ½-lb. balls.....11c
Jute Wool, 1-℔ balls.....6½c
Seine.
Nos..... 9 12 15+
Soft.....per ℔ 26½ 26 25
Med..... " 26½ 26 25
Hard .... " 27 26½ 26
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-ply "B" in hanks.....18c
4 " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks....37c
Fodder or Lath.
130-strand 6¾c
200 strand. 7½c

VISES.
Bonney's.....35¢
Cheney's .....20¢
Parker's Oval Slide.....50, 10&2½¢
Sargent's Oval Slide,
In. 2½ 3 3½ 4½
Ea. $1 00 $1 25 $1 65 $2 00
Parker's Parallel.....18&20¢
Parker's Victor.....15¢
Parker's Combination.....75¢
Solid Box.....50¢
Adam's Mechanics'.....each 2 50
Williamson Universal,.....60¢

WARE.
Stove Hollow Ware.
Plain or Unground .....60¢
Ground Ware.....50&10¢
Enameled Ware.....50¢
Country Hollow Ware, per 100 lbs. $2.75
White Enameled Ware.
Maslin Kettles.....60&10&10¢
Covered Ware, Tinned and Turn'd. 40¢
Enameled .....50¢
Glue Pots, Tinned.....30¢
Enameled.....35¢
Enameled.
Cherry Blossom and Chrysolite. 50¢

WASH BOARDS—See Boards.

WASHERS.
Standard O. G. cast iron...per ℔. 2¼c
Wrought iron in bulk per ℔.:
In. ½ ⅝ ¾ ⅞ 1 ⅛ 1¼
7¼c 5¼c 4c 3¾c 3½c 3½c 3¼c
Wrought steel in 5 ℔. boxes, per ℔.
In. ½ ⅝ ¾ ⅞ 1 ⅛ 1¼
8¾c 6¼c 5c 4¼c 4¼c 4¼c 4¼c

WASHING MACHINES—See Machines.

WEDGES.
Ax.....per doz....30c
Galling ....per ℔ 10¾c
Saw ,..... " 8¼c

WEANERS.
Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 60

WEIGHTS.
Hitching .....per ℔ 2¼c
Sash—F.O.B. Chicago...pr ton $24 00

WHEEL BARROWS.
Common Railroad....per doz..$15 00
Heavy " .... " .. 20 00
Panama Steel Tray " .. 35 00
Klondike " " .. 23 50
No. C4 Tubular " " .. 45 00
No. C5 " " " .. 48 75

WHEELS.
Corundum .....70&10&5¢
Emery .....75&5¢
Well In. 8 10 12 14
Per doz.....$2.10 $2.50 $3.15 $5.00

WIRE.
Barbed Painted. Galv'd.
Carloads..per 100 lbs..$2.20 $2.50
Less than car " .. 2.25 2.55
Brass.
In coils.....20¢
In 1 ℔ spools, new list.....50&10¢
Broom—Tinned.....60&10&10&10¢
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10¢ 33⅓¢
In 1 ℔ spools, new list .....50&10¢
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2.10
Nos. 6 to 9, Galv'd... " 2 40
Hair—New list.....50&10¢
Market.
Bright, full bdles.....70&10¢
Bright, broken bdles .....70¢
Coppered, full bdles.....70¢
Coppered, broken bdles.....65&10¢
Tinned, full bdles.....70&5¢
Tinned, broken bdles.....65&10¢
Picture—In coils.....80¢@80&10¢
In 5 ℔. spools. .....per ℔..26c
Plain—Small lots..... $2.10
Car lots 2.05
Small spools 5c per hundred higher.

WRENCHES.
Acme Standard.....60¢
Alligator .....75&80¢
Always Ready..... .....50&10¢
Bemis & Call No. 2 Improved Pipe Wrenches ..... .80¢
Coe's Standard.....40&10¢
Agricultural.....75&10¢
Ellis Adjustable.....25¢
Malleable "S".....per ℔. 05½c
Malleable..... " 05½c
Stillson Pipe .....70&5¢
Trimo " .....70&5¢

WRINGERS.
Clothes.
No. 22, Guarantee....per doz. $32 00
No. 110, Guarantee.... " 32 00
No. 110, Brighton..... " 22 00
No. 110, Bicycle ..... " 31 00
No. 500, Royal ..... " 32 00
No. 350, Universal.... 27 00
No. 300, Novelty..... " 27 00
No. 310, Keystone . .. " 27 00
No. 100, Rival ..... " 23 00
No. 330, Relief..... " 27 00
No. 200, Superior..... " 24 00
No. 10, Fresh Water.. " 18 00
No. 15, Star..... " 16 00

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Peters Cartridge Co. 79
Pittsburgh Steel Co. 65
Pittsburgh Stove & Range Co. 2
Powers Bros. 80
Pritchard-Strong Co. 48
Pullman Mfg. Co. 66
Quincy Pattern Co. 50
Reed Mfg. Co. 77
Remington Typewriter Co. 57
Revolving Bin Mfg. Co. 61
Richards Mfg. Co. 71
Ringen Stove Co. 4
Robinson Furnace Co. 7
Root Bros. Co. 52
Rudy & Gartner 69
Safety Door Hanger Co. 1
Sattley Stacker Co. 66
Sayre Stamping Co. 51
Schneider & Trenkamp 4
Schoedinger, F. O. 53
Schwab, R. J. & Sons Co. 14-15
Schill Bros. Co. 4
Sealskin Swaty Strop Co. 66
Security Lightning Rod Co. 69
Signal Mail Box Co. 75
Simmons Hdw. Co. 78
Smith Bros. Mfg. Co. 62
Smith, Chas. Co. 11
Smith & Hemenway Co. 62
So. Erie Iron Works 10
Sperry, D. R. & Co. 65
Stanley Rule & Level Co. 67
Star Enameling & Stamping Co. 61
Star Expansion Bolt Co. 80
Stevens, J., Arms & Tool Co. 79
Setwart Iron Works Co. 72
Stowell Mfg. Co. 54
Strand Youngquist Mfg. Co. 61
Stuber & Kuck 62
Sturges & Burn Mfg. Co. 70
Sycamore Wagon Wks. 62
Sykes Steel Roofing Co. 58
Thatcher Furn. Co. 10
Turner Brass Works 55
U. S. Clothes Pin Co. 55
Van, John Range Co. 4
Vedder Pattern Works 50
Victor Stamping Co. 75
Volkommer & Co. 64
Ward-Dickey Steel Co. 60
Waverley Washer Co. 63
Weiss, H. & Co. 56
Weller Pattern Co. 50
Wellsburg Heating & Fdy. Co. 11
Wheeling Corrugating Co. 59
Whitacre Mfg. Co., J. E. 54
White Lily Washer Co. 63
Willard, Wm. G. 12
Windhorst & Co. 58
Wise Furnace Co. 14
Yale & Towne Mfg. Co. 71
Youngstown Furnace & Supply Co. 12
Zacharias, C. R. 52
Zucker, Levett & Loeb 74

CLASSIFIED LIST.

Acetylene Generators

Ideal Epworth Acetylene Co., Johnstown, Pa.

Aluminum Ware

Illinois Pure Aluminum Co., Lemont, Ill

Ash Sifters

Hill Dryer Co., Worcester, Mass

Ammunition

Peters Cartridge Co., Cincinnati, O
Stevens, J Arms & Tool Co., Chicopee, Mass

Augers—Post Hole

Iwan Bros., Streator, Ill

Bins

Revolving Bin Co., Chicago, Ill

Bolts

Columbus Bolt Wks., Columbus, O
Star Expansion Bolt Co., New York, N.Y

Brass

Hungerford, U. T., Brass & Copper Co. New York, N. Y.

Buggies

James & Meyer, Lawrenceburg, Ind.

Cans

American Can Co., Chicago, Ill
Stuber & Kuck, Peoria Ill
Sturges & Burn Mfg. Co., Chicago

Carpenter Benches

Grand Rapids Hand Screw Co., Grand Rapids, Mich

Carpenters' Tools

Stanley Rule & Level Co., N. Britain, Ct

Cartridges

Peters Cartridge Co., Cincinnati, O

Cases

American Bolt & Screw Case Co., Dayton, Ohio
Hawkes-Jackson Co., New York

Ceilings—Metal

Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Edwards Mfg. Co., Cincinnati, Ohio
Friedley & Voshardt, Chicago, Ill
Illinois Roofing & Supply Co., Chicago, Ill
Keighley Met. Ceiling Co. Pittsburg, Pa
Wheeling Corrugat'g Co., Wheeling, W Va

Chains

Bridgeport Chain Co., Bridgeport, Ct
Oneida Community, Oneida, N.Y

Chimney Tops

Iwan Bros., Streator, Ill
Kramer Bros. Fdy. Co., Dayton, O

Clippers

Hotchkiss, Edward S., Bridgeport, Ct

Clips—Carriage Trimmer's

U. S. Clothes Pin Co., Montpelier, Vt

Clothes Dryers

Hill Dryer Co., Worcester, Mass
Mannen & Esterly, Cleveland, O

Clothes Pins

U. S. Clothes Pin Co., Montpelier. Vt

Coal Hods

Victor Stamping Co., Cleveland, O

Coat Hangers

Pullman Mfg. Co., Rochester, N.Y

Coffee Mills

Enterprise Mfg. Co. of Pa., Philadelphia, Pa

Conductor Hangers

Berger Bros. Co., Philadelphia, Pa
Iwan Bros., Streator, Ill

Conductor Pipe

Berger Bros. Co., Philadelphia, Pa
Berger Mfg. Co., Canton, O
Clark, Quien & Morse, Peoria, Ill
Friedley & Voshardt, Chicago, Ill
Garry Iron & Steel Co., Cleveland, O
La Crosse Steel Roof. Co., La Crosse, Wis
Schoedinger, F. O., Columbus, Ohio

Copper

Hungerford, U. T., Brass & Copper Co., New York, N. Y

Corn Cribs

Denning Wire & Fence Co., Cedar Rapids, Ia

Cornices

Berger Mfg. Co., Canton, O
Canton Mfg. Co., Canton, O
Eller, J. H. & Co., Canton, O

Cornice Brakes

Bertsch & Co., Cambridge City, Ind
Dreis & Krump, Chicago, Ill
Niagara Machine & Tool Wks., Buffalo, N.Y

Cream Separators

Sturges & Burn Mfg. Co., Chicago

Cut Offs—Rain Water

Cooney & Geiger, Indianapolis, Ind
La Crosse Steel Roof. Co., La Crosse, Wis
Howard, F. F., Marlette, Mich

Dampers

Arcade Mfg. Co., Freeport, Ill
Howes Co., S. M., Boston, Mass
Sayre Stamping Co., Sayre, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Display Racks

Rudy & Gartner, Paola, Kans

Dies

Globe Mch. & Stamp Co., Cleveland, O

Door Hangers

Richards Mfg. Co., Aurora, Ill

Doors—Screen

Arcade Mfg. Co. Freeport, Ill.

Drain Cleaners

Iwan Bros., Streator, Ill

Duplicators

Daus, F. C. L., Duplicator Co., New York, N.Y

Eaves Trough

Canton Mfg. Co., Canton, O
Eller, J. H. & Co., Canton, O
Garry Iron & Steel Co., Cleveland, O
La Crosse Steel Roof. Co., La Crosse, Wis
Schoedinger, F. O., Columbus, O
Whitacre Mfg. Co., J. E., Rockford, Ill

Elbows—Conductor Pipe

Dieckmann, F., Cincinnati,
Wheeling Corrugating Co., Wheeling, W. Va

Electro Plating Outfits

Zucker, Levett & Loeb. New York, N.Y

Elevators

Kimball Bros. Co., Council Bluffs, Ia

Enamel—Iron

Nickel Plate Stove Polish Co., Chicago

Enameled Ware

Briscoe Mfg. Co., Detroit
Lalance & Grosjean Mfg. Co., Chicago, Ill
Reed Mfg. Co., Newark, N. Y
Star Enameling and Stamping Co., Pittsburgh, Pa

Enameling and Stamping Plants

Volkammer & Co., Pittsburg

Engineers & Contractors

Volkammer & Co., Pittsburg

Fencing

Cyclone Woven Wire Fencing Co. Waukegan, Ill
Denning Wire & Fence Co., Cedar Rapids, Ia
Pittsburgh Steel Co., Pittsburgh, Pa
Stewart Iron Works Co., Cincinnati, O

Files

Barnett, G. & H. Co., Philadelphia, Pa
Disston Henry & Sons, Philadelphia, Pa

Fire Shovels

Lalance & Grosjean Mfg. Co., Chicago

Flue Stoppers

Stuber & Kuck, Peoria, Ill

Forks

American Fork & Hoe Co., Cleveland, O

Forming Rolls

Bertsch & Co., Cambridge City, Inc
Globe Mch. & Stamp. Co., Cleveland, O
Niagara Mch. & Tool Wks., Buffalo, N.Y

Foundry Supplies

Obermayer, S. Co., Cincinnati, O

Freezers—Ice Cream

North Bros. Mfg. Co., Philadelphia, Pa

Furnaces—Hot Air

Beckwith, Estate, P. D. Dowagiac, Mich
Bonnot Co., Canton, O
Boynton Furnace Co., New York and Chicago
Craig-Reynolds Fdy. Co., Dayton, O
Green Fdy. & Furn. Wks., Des Moines, Ia
Haynes-Langenberg Mfg. Co., St. Louis
Henry & Scheible Co., Cleveland, O
Kelsey Heating Co., Syracuse, N. Y
Lennox Furnace Co., Marshalltown, Ia
Mannen & Esterly Co., Cleveland, O
March-Brownback Stove Co., Pottstown, Pa
Monroe Fdy. & Furn. Co., Monroe, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis
Peck-Hammond Co., Cincinnati, Ohio
Pittsburgh Stove & Range Co., Pittsburgh, Pa
Robinson Furnace Co., Chicago
Schwab & Sons Co., Milwaukee, Wis
Smith, Chas. Co., Chicago, Ill
Thatcher Furnace Co., New York, N.Y
Wise Furnace Co., Akron, O
Youngstown Furn. & Supply Co., Youngstown, O

Furnace Pipe and Fittings

Green Fdy. & Furn. Wks., Des Moines, Ia
Meyer Bros., Peoria, Ill
Michican Safety Furnace Pipe Co. Detroit, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis
Wellsburg Heating & Fdy. Co., Wellsburg, W. Va

Hand Screws

Grand Rapids Hand Screw Co., Grand Rapids, Mich

Hangers—Door

Safety Door Hanger Co., Ashland, O

Hangers—Trouser

Pullman Mfg. Co., Rochester, N.Y

Hardware

Butler Bros., New York, Chicago, St. Louis
Lawson Mfg. Co., Chicago, Ill

Hardware Jobbers
Clark, Quien & Morse, Peoria
Lee-Glass-Andreesen Hdw. Co., Omaha
Paxton & Gallagher Co., Omaha

Hardware Specialties
Bishop Hdw. Co., Dowagiac, Mich.
Kees Mfg. Co., Beatrice, Neb

Heaters—Steam and Hot Water
Craig-Reynolds Fdy. Co., Dayton, O
Haynes-Langenberg Mfg. Co., St. Louis
Monroe Fdy. & Furn. Co., Monroe, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis

Heaters—Vacuum
Kellogg-Mackay-Cameron Co., Chicago

Hinges
Arcade Mfg. Co., Freeport, Ill
Griffin Mfg. Co., Erie, Pa
Kees Mfg. Co., Beatrice, Neb

Hoes
American Fork & Hoe Co., Cleveland, O

Hollow Ware
Avery Stamping Co., Cleveland, O
Sperry, D. R. & Co., Batavia, Ill

Hot Water Attachments
Smith Co., Chas., Chicago, Ill

Ice Cream Freezers
North Bros. Mfg Co., Philadelphia, Pa

Japanned Ware
Lalance & Grosjean Mfg. Co., Chicago

Joints
Arcade Mfg. Co., Freeport, Ill

Kitchen Utensils
Avery Stamping Co., Cleveland, O

Lanterns
Berger Mfg. Co., Canton, O
Pritchard-Strong Co., Rochester, N. Y

Lawn Mowers
Clipper Lawn Mower, Dixon, Ill

Lawn Mower Grinders
Zacharias, C. B., Asbury Park, N. J
Root Bros., Plymouth, O

Levels
Baker-McMillen Co., Akron, O
Stanley Rule & Level Co., New Britain, Ct

Lighting Systems
Ideal Epworth Acetylene Co., Johnstown, Pa.
Windhorst & Co., St. Louis, Mo

Lightning Rods
Dodd & Struthers, Des Moines, Iowa
Maher & Sons, Preston, Ia
Moore Bros. Lightning Rod Co., Graham, Mo
Security Lightning Rod Co., Burlington, Wis

Mail Boxes
Blick-Williams Co., Indianapolis, Ind
Signal Mail Box Co., Joliet, Ill
Smith Bros. Mfg. Co., Chicago, Ill

Meat Choppers
Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Metal Lath
Wheeling Corrugating Co., Wheeling, W. Va

Metal—Perforated
Harrington & King Perforating Co., Chicago, Ill

Metal Polish
Hoffman, Geo. W., Indianapolis, Ind

Metal Shingles
Burton, W. J. Co., Detroit, Mich
Cortright Metal Roofing Co., Philadelphia
Nat'l Sheet Metal Roof. Co., Jersey City

Miters
Whitacre Mfg. Co., J. E., Rockford, Ill

Molding Sand.
Newport Sand Bank Co., Newport, Ky

Mop Wringers
Eagle Cooperage Wks., Circleville, O

Mouse—Traps
Chasse Mfg. Co., New York, N. Y

Nuts
American Lock Nut Co., Oregon, Ill
Columbus Bolt Works, Columbus, O
Garland Nut & Rivet Co., Pittsburgh, Pa

Nickel-Steel Ware
Lalance & Grosjean Mfg. Co., New York, N. Y

Oil Cans
Cooney & Geiger, Indianapolis, Ind

Oars
Strand & Youngquist, Minneapolis

Pails
American Specialty Stamping Co., Johnston, Pa

Paints
Connors, Wm. Paint Mfg. Co., Troy, N.Y
Dixon, Jos. Crucible Co., Jersey City, N. J
Enterprise Paint Mfg. Co., Chicago

Pencils
Dixon, Jos. Crucible Co., Jersey City, N.J

Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Photograph Clips
U. S. Clothes Pin Co., Montpelier, Vt

Pistols
Stevens, J. Arms & Tool Co., Chicopee Falls, Mass

Planes
Stanley Rule & Level Co., New Britain, Ct

Pumps
Beckman Bros., Des Moines, Ia
Berger Mfg. Co., Canton, O
Hess-Snyder Co., Massillon, O

Punches
American Lock Nut Co., Oregon, Ill
Bertsch & Co., Cambridge City, Ind
Globe Mch. & Stamp. Co., Cleveland, O
Niagara Mch. & Tool Wks., Buffalo, N.Y
Sattley Stacker Co., Indianapolis, Ind
Weiss, H. & Co., New York, N.Y

Ranges
Champion Steel Range Co., Cleveland, O

Rasps
Disston, Henry & Sons., Philadelphia, Pa

Refrigerators
Herrick Refrigerator Co., Waterloo, Ia

Registers
Ferro Steel Co., Cleveland, O
Henry & Scheible Co., Cleveland, O
Mueller, L. J., Furn. Co., Milwaukee, Wis
Schwab & Sons Co., Milwaukee, Wis

Repairs—Stove, Etc.
Dust, Wm. T. Co., Detroit, Mich

Rifles
Stevens, J. Arms & Tool Co., Chicopee Falls, Mass

Rivets
Hungerford, U. T., Brass & Copper Co., New York, N. Y

Roofing
Johns-Manville, H. W. Roofing Co., New York, N. Y
Niles Corrugating Co., Niles, O

Roofing—Asphalt
Stowell Mfg. Co., Jersey City, N.J

Roofing—Iron and Steel
Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt, Chicago, Ill
Garry Iron & Steel Co., Cleveland, O
La Crosse Steel Roof. Co., La Crosse, Wis
Nat'l Sheet Metal Roof. Co., Jersey City
Schoedinger, F. O., Columbus, O
Sykes Steel Roofing Co., Chicago, Ill

Roofing Cement
Connors, Wm. Paint Mfg. Co., Troy, N.Y
Garry Iron & Steel Co., Cleveland, O

Roof Paint
Conners, Wm. Paint Mfg. Co. Troy, N.Y
Dixon, Jos. Crucible Co., Jersey City, N.J
Garry Iron & Steel Co., Cleveland, O

Rules
Lufkin Rule Co., Saginaw, Mich
Stanley Rule & Level Co., New Britain, Ct

Sad Irons
Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Safety Razors
Gillette Safety Razor Co., New York, N Y
Kampfe Bros., New York, N Y

Sash Balances
Pullman Mfg. Co., Rochester, N.Y

Saws and Saw Sets
Atkins, E. C. & Co., Indianapolis, Ind
Diamond Saw & Stamping Co., Buffalo, N. Y
Disston, Henry & Sons, Philadelphia, Pa
Goodell-Pratt, Greenfield, Mass

Scales
Beckman Bros., Des Moines, Ia

Screens—Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Screens—Radiator
Harrington & King Perforating Co. Chicago, Ill

Screws
Columbus Bolt Works, Columbus, O

Screw Drivers
North Bros. Mfg. Co., Philadelphia, Pa

Scuttle Openers
Bickelhaupt, G., Skylight Works, New York, N. Y

Shears—Sheet Metal
Bertsch & Co., Cambridge City, Ind
Niagara Mch. & Tool Wks., Buffalo, N.Y
Weiss, H. & Co., New York, N.Y

Sheet Metal Specialties
Friedley & Voshardt, Chicago, Ill
Gerock Bros. Mfg. Co., St. Louis, Mo

Sheets—Black and Galvanized
Berger Mfg. Co., Canton, O
Wheeling Corrugat'g Co., Wheeling, W. Va

Sheets—Planished
Ward-Dickey Steel Co., Indiana Harbor, Ind

Shelving—Hardware
Heller & Co., Mont Clair, N. J

Shot Guns
Stevens Arms & Tool Co., Chicopee Falls, Mass

Shovels
Avery Stamping Co., Cleveland, O

Sifters
Stuber & Kuck, Peoria, Ill

Skylight Gearing
Bickelhaupt, G., Skylight Works, New York, N. Y
Weiss, H. & Co., New York, N.Y

Slate
Auld & Conger Co., Cleveland, O
Johnson, E. J. & Co., New York, N.Y
O'Halloran & Jacobs, Pittsburgh, Pa

Soldering Furnaces
Clayton & Lambert Mfg. Co Detroit
Diener, Geo. W. Mfg. Co., Chicago
Turner Brass Co., Chicago, Ill

Sporting Goods
Cycle Skate & Spt. Goods Co., New York
Enterprise Mfg. Co., Akron, O

Squares, Machinists'
Disston, Henry & Sons, Philadelphia, Pa
Duby & Shinn, New York City, N.Y
Stanley Rule & Level Co., New Britain, Ct

Stampings—Sheet Metal
Avery Stamping Co., Clevelnd, O

Stampware
American Specialty Stampware Co., Johnstown, Pa

Steel Brick and Stone Siding
Wheeling Corrugat'g Co., Wheeling, W. Va

Steel Brakes
Dreis & Krump, Chicago, Ill

Step Ladders
Adler, H., Co., Carnegie, Pa

Steel Roofing
Sykes Steel Roofing Co., Chicago, Ill

Stoves and Ranges
Beckwith, P. D. Estate, Dowagiac, Mich
Belville Stove & Range Co., Belville, Ill
Culter & Proctor Stove Co., Peoria, Ill
Glazier Stove Co., Chelsea, Mich
Hess, Snyder Co., Massillon, O
Marion Stove Co., Marion, Ind
Pittsburgh Stove & Range Co. Pittsburgh, Pa
Ringen Stove Co., St. Louis, Mo
Schill Bros. Co., Crestline, O
South Erie Iron Works, Erie, Pa
Van, John, Range Co., Cincinnati, Ohio
Willard, Wm. G., St. Louis, Mo

Stoves—Gas
Adler, H., & Co., Carnegie, Pa
Fanner Mfg. Co., Cleveland, O
Pittsburgh Stove & Range Co., Pittsburgh, Pa
Ringen Stove Co., St. Louis, Mo

Stove Carriers
Kramer Bros. Fdy. Co., Dayton, O

Stove Cement
Dixon, Jos. Crucible Co., Jersey City, N.J

Stove Clay
Bridgeport Crucible Co., Bridgeport, Ct

Stove Lifters
Kramer Bros. Fdy. Co., Dayton, O

Stove Mats
Stuber & Kuck, Peoria, Ill

Stove Pipes
Hemp & Co., St. Louis, Mo
Ohio Stove Pipe & Mfg. Co., New Philadelphia, Ohio
Wheeling Corrugat'g Co., Wheeling, W. Va

Stove Patterns
Cope Pattern Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N.Y
Weller Pattern Co., Quincy, Ill

Stove Pipe Thimbles
Stuber & Kuck, Peoria, Ill

Stove Polish
Nickel Plate Stove Polish Co., Chicago

Stove Repairs
Brauer, A. G., St. Louis, Mo
Kramer Bros. Fdy. Co., Dayton, O
Manufacturers' Stove Repair Co., Chicago

Stove Trimmings
Fanner Mfg. Co., Cleveland, O

Strops
Sealskin Swaty Strop Co., Ottumwa, Ia

Sugar Kettles
Sperry & Co., Batavia, Ill

Tapes
Lufkin Rule Co., Saginaw, Mich

Test Tube Holders
U. S. Clothes Pin Co., Montpelier, Vt

Thermometers—Oven
Evans Stamping & Plating Co., Taunton, Mass

Thermostats
Howard Thermo. Co., West Oswego, N. Y

Thumb Tacks
Hawkes-Jackson Co., New York

Tin—Perforated
Harrington & King Perforating Co., Chicago, Ill

Tinners' Tools
Dreis & Krump, Chicago, Ill

Tinplate
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Eller, J. H. & Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Garry Iron & Steel Co., Cleveland, O
Illinois Roofing & Supply Co., Chicago, Ill
Lee-Glass-Andreesen Hdw. Co., Omaha
McClure Co., Philadelphia, Pa
Merchant & Evans Co., Philadelphia, Pa
Schoedinger, F. O., Columbus, O

Tinware
Butler Bros., Chicago, Ill
Lalance & Grosjean Mfg. Co., Chicago
Stuber & Kuck, Peoria, Ill
Sturges & Burn Mfg. Co., Chicago

Traps—Mice
Chasse Mfg. Co., Middletown, N. Y

Trowels
Atkins & Co., Indianapolis, Ind
Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubs and Pails
Wheeling Corrugat'g Co., Wheeling, W. Va

Typewriters
Remington Typewriter Co., Chicago

Valve Regulators
Howard Thermo. Co., West Oswego, N. Y

Ventilators
Canton Mfg. Co., Canton, O
Friedley & Voshardt, Chicago, Ill
Globe Ventilator Co., Troy, N.Y
Merchant & Evans Co., Philadelphia, Pa
Powers Bros., Streator, Ill

Wagons
Sycamore Wagon Works., Sycamore, Ill

Washing Machines
Benbow-Brammer Mfg. Co., St. Louis, Mo
Brammer, H. F. Mfg. Co., Davenport, Ia
Waverly Woodenware Wks., St Joseph, Mo
White Lily Washer Co., Davenport, Ia

Wire Goods
Denning Wire & Fence Co., Cedar Rapids, Ia
Pittsburgh Steel Co., Pittsburgh, Pa

Zincs
Lalance & Grosjean Mfg. Co., Chicago

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS

HUBERT E. PECK, 623 F St., N. W., Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications."

For Sale—General stock of merchandise; double stone store, wagon, scales and coal business. Address Owner, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 14-3t

For Sale—Hardware stock of about $3,500 in town of 1,250 population in Central Wisconsin. This is a good, clean stock and a very good chance for a party wishing to locate in a farming country. Old age of senior partner cause of change. Address J. G. & S., care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 14-3t

For Sale—Stock of hardware, stoves and tinware in a live town of 5,000 population in Eastern Ill. Stock will invoice about $5,000.00. The best of reasons for selling; old age and poor health. Address The Best, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 14-3t

Exchange—A choice quarter of Clay Co., Minnesota, land to trade for a hardware stock. Adjoining lands produce 25 to 30 bu. of wheat and from 40 to 80 bu. of oats. Address Square Deal, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 14-3t

For Sale—$8,000 stock of general hardware in one of the best county seat towns in southern Kansas. Good land and crops and fine oportunity to do a good business. Stock clean and modern. Cash deal. Address Good Investment, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 13-3t

For Sale—A clean stock of stoves, tinware and house furnishing goods, roofing, spouting and plumbing shop in connection. Located in central Ohio town; doing a good business. Retiring from business, reason for selling. Will bear investigation. Address Ohio, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 13-3t

For Sale—Hardware stock of about $3,500 in town of 1,250 population in central Wisconsin. This is a good clean stock and a very good chance for party wishing to locate in a farming country. Old age of senior partner cause of change. Address J. G. & S., care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 13-3t

For Sale—Our stock of hardware with shop in connection doing $25,000 annual business. Town of 5,000; as good a climate as any in the U. S. This is a money maker and about $4,000 cash will take the business. Satisfactory reasons for selling. Address Box 857, Idaho Falls, Idaho. 13-3t

Wanted—To buy for spot cash, a good tinshop or shop and hardware store combined in city or small town of not less than 1,000 population. State price and description of business in first letter, also amount of competition. Address Driver K., care THE AMERICAN ARTISAN, 69 Dearborn St. 13-3t

Wanted—To correspond with some one in need of a thoroughly up-to-date, experienced hardware man, as buyer or manager, with the object of buying an interest in store if parties are mutually agreeable. Address Hustler, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 13-3t

For Sale—A clean, well assorted stock of tin and hardware, stoves, paints, tinner's tools, fixtures, show cases, safe, horse, harness, buggy and wagon. Will invoice about $2,000 for entire stock and trade; fine location; rent reasonable; good chance for a hustler; sickness the reason for selling out. Address Geo. Sichling, 241 4th St., Milwaukee, Wis. 13-3t

For Sale—A good stock of hardware and tin shop in connection. Price about $3,500. Twelve miles territory. Address J. C. Petheram & Son, Kanawha, Iowa. 12-3t

For Sale—Hardware and implement business in small town in best farming section of northwestern Iowa; splendid proposition; good reason for selling; no trades considered, but time will be given on part of purchase price if desired. Address H. and T., care THE AMERICAN ARTISAN. 12-4t

For Sale—A clean, up-to-date stock of hardware, stoves and tinware invoicing about $4,200, situated in southern part of Wisconsin, county seat, population 2,000. Town is nicely located and surrounded by a rich farming country. Only two hardware stores in the place. If you are interested it will pay you to look into this. Address Lock Box 52, care of THE AMERICAN ARTISAN. 12-3t

For Sale—A good clean stock of hardware, stoves, tinware, queensware and good implements. Also tinshop in building. Located in a good farming community in eastern Iowa. Will sell or retain implement business. Good reason for selling. Address, No. 1, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. ufn

TINNERS' TOOLS.

For Sale—Tinner's tools and machines that will list $152.70. Price $75.00; f. o. b. cars here; for the next 30 days. Guaranteed as represented. Address G. D. Waters, Kendrick, Okla. 13-1t*

Wanted—To trade, 1 Olmstead double seamer and setting down attachment, 1-6 inch beading machine, 1 burring, turning and wiring machine, 1 20-inch tin folder, 1 square head stake and 1 blowhorn stake. These tools have not had one year's use and we wish to trade for a second-hand 8 or 10-foot cornice brake. Address Hardin Bros., West Liberty, Iowa. 13-3t

For Sale—No. 38 Forbs patent pipe cutting and threading machine. Cuts XX-1-¼ to 4 inch. Cost $100. Will sell for $50.00. Will ship on trial to responsible parties. Address G. F. Chapman, Linton, Ind. 13-3t

HELP WANTED.

Wanted—An all-around tinner and furnace man to work in hardware and implement store. Steady work year around. Address Davis & Fell, Toulon, Ill. 14-1t*

Wanted—At once, an all-around tinner. Steady position. Address Grebe Hdw. & Harness Mfg. Co., Barrington, Ill. 14-3t

Wanted—A good tinner, steady job for the right man. Address Stephenson & Studeman, Madison, Wis. 14-3t

Wanted — A first-class up-to-date plumber and tinner at once. Steady job the year around. Address W. W. Wheeler & Son, Harlan, Iowa. 13-3t

Wanted—An all-around tinner, plumber, furnace and hot water and steam heat man. Must know how to wipe a joint; also to figure on jobs. Good wages to right man. Address Webb & Ziegler Hdw. Co., Marysville, Ohio. 14-3t

Wanted—At once, a good tinner, good on roofing, spouting and general job work, one able to do inside work preferred. Good wages and steady job to a good man. Address C. H. P., 415 Franklin St., Michigan City, Ind. 14-3t

Wanted—Steady work for first-class tinner. Must be A1 mechanic on all general work in job shop. Must be able to do furnace work right. Strictly sober and willing to hustle; none other need apply. State wages wanted in first letter. Address Box 972, Hartford City, Ind. 14-3t

Wanted—A good tinner, who can do plumbing and work in hardware store. An all-around man, who is willing to do anything that comes along. Steady job for the right man; no boozer; state wages and experience in first letter. Address J. B. Thomas, Lyons, Neb. 14-3t

Wanted—Good all-around tinner to do inside and outside work, also furnace work and some knowledge of plumbing; must be able to clerk in store. Steady work the year around to the right man. German preferred. State wages wanted. Address P. O. Box 513, Holstein, Iowa. 14-3t

Wanted—At once, a good plumber and gas fitter; one that can do tin work. Married man preferred; steady work by the year. State wages, age and give references in first letter. Address J. V. Chryst, Morrison, Ill. 14-3t

Wanted—An experienced tinner, one who understands furnace work. Good salary and steady employment to right man with good habits. Address Lock Box, Coggan, Iowa. 14-3t

Wanted—Tinner and furnace man. State wages wanted. Address 223, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 14-3t

Wanted—An honest, sober and industrious tinner and furnace man at once; work the year around. State wages and references in first letter. Address Guard & Bishop, LeRoy, Ill. 14-2t

Wanted—Tinners at once; steady work; good pay. Address Churchill Hdw. Co., Galesburg, Ill. 14-3t

Wanted—A plumber, one who understands tin work preferred; good all-around man; must be sober and honest. References required; good wages and steady job. Address Lee's Hdw. Co., Eveleth, Minn. 14-3t

Wanted—First-class tinner and sheet metal man, capable of taking charge of shop; must be sober; good wages and steady work in live Western town. Address J. A. Roell Hdw. Co., Minot, N. D. 14-3t

Wanted—At once, a competent furnace and boiler salesman for the State of Illinois. Address Furnace Salesman, care of THE AMERICAN ARTISAN, 69 Dearborn, Chicago. U. F. N.

Wanted—A good hardware clerk; must be a good salesman, good stock keeper, thoroughly understand sewing machines and have some knowledge of window dressing and bookkeeping. Address Clerk, care THE AMERICAN ARTISAN. 14-3t

Wanted—First-class salesman, by leading furnace and boiler manufacturer. Only men who have had actual experience in warm air, steam and hot water heating wanted. Prefer men who have sold goods to the trade. Excellent opportunity for the right man. Established trade in territory. Address O. B. J., care THE AMERICAN ARTISAN, Chicago. U. F. N.

Wanted — An experienced hardware clerk, married or single. Good references required. Write or apply at once. State age, experience and wages wanted. Address G. B. Watrous & Son, Waukegan, Ill. 14-3t

For Sale—Tinners' tools, including 30-in. square, shears, stakes, small rolls, etc. Prices that are right. Send for list and prices. Address M. P. Blum, 1208 Commercial St., Waterloo, Iowa. 14-1t*

For Sale—Our entire set of tinners' tools, including squaring shears; will sell at a bargain if sold at once. Any one wishing a bargain please write at once as above will be sold the first chance. Address Frank Brooking, Macomb, Ill. 14-3t

Steel Range Salesmen—Wanted, men for a number of states; must be first-class salesmen with actual experience in this line. Important to be thoroughly informed on general store trade. A rare opportunity for the right man. Address Don't Miss It, care of THE AMERICAN ARTISAN. 12-4t

Wanted—I will pay $50.00 per month the year around to the tinner that will do my work. Only a good, honest and sober man need apply. An easy job for some one. Must furnish references. Address R. W. Hedemann, Bloomington, Wis. 13-3t

Wanted—At once, a good, clean cut, experienced stove salesman to sell a good grade low-priced line of stoves and ranges in Iowa. These goods, with the price and freight advantage, are an easy money maker for the salesman. None but first-class salesman need apply. Also want man for South Dakota. Send references. Write at once. Address Cascaden Mfg. Co., manufacturers Progressive Steel Stoves and Ranges, Waterloo, Iowa. 13-4t*

Wanted—A good all around tinner to take charge of shop and do furnace work; must be steady, sober and a hustler. Married man preferred. Steady job for the right man. Address H. A. Griffin, Table Grove, Ill. 13-3t

Wanted—A good, experienced plumber and tinner; prefer married man; steady job; no boozer need apply. Address Refshange, Noble Hdw. Co., Cedar Falls, Iowa. 13-3t

Wanted—At once, a good all around tinner who understands furnace work; must be sober, with good references. Steady employment the year around. Good wages. Address Peter Filler, Kaukauna, Wis. 13-3t

Wanted—At once, a tinner who can do ordinary shop work, roofing, etc. Must be sober and willing to help in store. Give references and wages wanted. Steady work. Address Hirons & Cote, Clayton, Ill. 13-3t

HELP WANTED.

Wanted—At once, a first-class tinner and furnace man. Also one who can do ordinary plumbing. Must be capable of closing sales in this line. Steady work by the year to the right man. Address Kelley & Co., Farmington, Iowa. 13-3t

Wanted—At once, an A1 tinner for inside and outside work; also furnace work. State wages and references in first letter. No booze fighters need apply. Address E. B. Coe, Clayton, Ill. 13-3t

Wanted — Good hardware salesman wanted to sell two patented specialties of real merit; ready sale and in daily use. Address C. A. Peck Hdw. & Mfg. Co., Berlin, Wis., P. O. box E. 13-3t

Wanted—Stove salesman for South Dakota. State age, experience and salary expected. Address The Art Stove Company, Chicago, Ill. 13-3t

Wanted—Experienced salesman to sell the F. P. Light System. Good wages Expenses paid. None but first-class salesmen with experience need apply. Steady work to the right party. Address "Fire," care of THE AMERICAN ARTISAN. 12-3t

Wanted—A good all-around tinner and plumber, one who thoroughly understands his business. State experience and references. Address O. K., care of THE AMERICAN ARTISAN. 12-3t

Wanted—A first-class tinner, one that is experienced in plumbing preferred. Must be temperate and steady. Will give steady employment the year around and pay good wages. Address J. C. Lewis Company, Antigo, Wis. 12-3t

SITUATIONS WANTED.

Situation Wanted—At once, by a good, alive, up-to-date hardware man as clerk and to do some tinning work. Have had four years' experience as clerk, bookkeeper and some shop and outside work; can furnish the best of references. Position desired where there is a chance for advancement. Address Box 100, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 14-3t

Situation Wanted—By tinner in or near Chicago. Steady job wanted. Address A. F., care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 14-3t

Situation Wanted—A first-class tinner, long experience in large job work, desires a good position. Chicago preferred. Excellent references as to character and ability. Address Max Weiss, 455 N. Ashland Ave., Chicago, Ill. 13-3t

Situation Wanted—By tinner of 5 years' experience in Pacific Coast states. Strictly sober and can furnish references Address R. Whitmore, Rudd, Iowa. 13-3t

SPECIAL NOTICES.

WANTED.

First-class salesmen, by leading furnace and boiler manufacturer. Only men who have had actual experience in warm air, steam and hot water heating wanted. Prefer men who have sold goods to the trade. Excellent opportunity for the right men. Established trade in territory. Address O. B. J., care AMERICAN ARTISAN, Chicago. u.f.n.

SPECIAL NOTICES.

WANTED.

A large foundry in Pennsylvania making stoves, furnaces and boilers, is in need of a foreman metal pattern maker. Must be absolutely first-class. State wages wanted and references. Address, "Steady Job," care AMERICAN ARTISAN.

TO MANUFACTURERS, INVENTORS, ETC.

We are about to extend our business in the Pacific Coast States, and desire agency for any first-class specialties.—Financially able and have facilities for handling goods. Best bank references.—Anything requiring business, energy, etc. Address W.W.R., 206 Callaghan Building, Market Street, San Francisco, Cal.

Hardware Stock Wanted

In exchange for good improved farm in Iowa or Illinois. Address Farm, care of The American Artisan.

FOR SALE

Steel Shovel Plant. Daily capacity 150 dozen. Located in Northern Ohio. Excellent railroad facilities. A big bargain. For full particulars write, "Ohio Banker," care AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill.

FOR SALE

A Hardware and Implement Specialty Manufacturing business, started 14 years ago in a small way *without capital*, has made a living for proprietor and family during the time and gained a surplus of over $20,000, is growing rapidly and is paying now much better than ever. Capital required to buy and run the business about $12,000. Reasons for selling, age and failing health of proprietor. For full particulars address Lock Box 136, Freeport, Ill.

Manufacturing Plant For Sale.

Products, small farm implements, stoves and bobsleds; sale imperative; can be turned over with established business as going concern; located in a Michigan city; labor conditions satisfactory. Address DETROIT TRUST CO., Detroit, Mich.

WANTED

Experienced tinner and furnace man. Must be steady and sober. State ability, experience and salary.

MORGAN,
1-2t. Starkweather, N. Dak.

Special Notice.

Wanted—Traveling Salesman. To sell a well known line of stoves and ranges. Men wanted for Ohio and Minnesota, must be competent and know the trade. Good salary. Address H. W., care of AMERICAN ARTISAN, Chicago, Ill.

WANTED

Wood Pattern Makers on Stove work. Address "Pattern Maker," care of AMERICAN ARTISAN.

u. f. n.

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Contemplating establishing plants in the West should take advantage of a location on

THE NORTH-WESTERN LINE
C.&N.W.RY.

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Water Powers, Coal Fields, Iron Ore Ranges, Hard & Soft Lumber Districts

of the West and Northwest, and affords the best means of transportation to the markets of the world. For further particulars apply to

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For all kinds of plants using iron and steel and other metals. The country reached by the

SOUTHERN RAILWAY AND MOBILE & OHIO RAILROAD

is now growing at a rapid rate. This growth is steady, substantial and based upon the great natural resources. Give us your requirements for plant location and we shall be glad to send information. Write the nearest agent.

Small foundry in good town for sale cheap. Refer to Washington File 24,657, Chicago File 16,209

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ONE who watches carefully the pages of general advertising mediums is struck by two things: the persistency with which those advertisers who are recognized as successful maintain their advertising week after week, month after month, and year after year; they never seem to abate their effort, and apparently the volume of their business increases steadily. The other thing noticeable is the large number of advertisers who thrust their announcements above the surface for a little while and then sink into oblivion. They either had not merit as a basis for their claims or they did not possess the skill to steer their enterprise successfully, or else they lacked the nerve to put forth proper effort. —ADVERTISING EXPERIENCE.

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ON

THE ERIE, THE COMMERCIAL RAILROAD

Chicago to New York

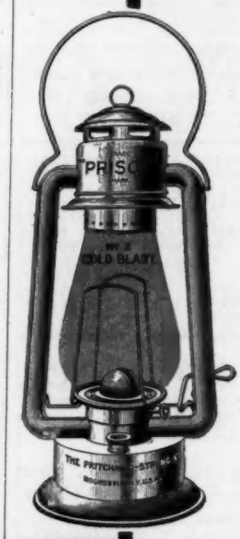
The Erie Railroad System's Industrial Department has all the territory traversed by the railroad districted in relation to resources, markets and advantages for manufacturing, can advise with manufacturers of specific products as to suitable locations, and furnish them with current information of a comprehensive nature dealing with the project in its full relation to manufacture and commerce.

The Erie is one of the greatest of trunk lines. Its own rails connect the two largest cities of America. Every section of the System has its particular merits. Profitable locations exist. It has great general and coal, oil and natural gas resources.

It is important in this age of modern facilities for manufacturers to locate where they can obtain side tracks so as to receive from and ship directly into cars at the factory. Information can be promptly furnished in this connection about every point on the system between New York and Chicago.

Manufacturers' inquiries as to locations are treated in strict confidence, and absolutely reliable information, so as to promote permanent traffic, is furnished. Address

LUIS JACKSON
Industrial Commissioner
Erie Railroad Company.
21 Cortlandt Street, New York.



You can sell **"PRISCO"** Lanterns for **more money** than other Lanterns, —and make a larger profit on each sale.

That's what Hardware Merchants write us,—and they ought to know.

"PRISCO" quality is **worth** more,—and as soon as you sell a dozen or two of **"PRISCO"** Lanterns, your trade will begin to demand **"PRISCOS,"** and pay more to get them.

Ask your Jobber,—or write us—for the "PRISCO" Proposition.

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DIXON'S STOVE CEMENT.

Applied easily. Dries rapidly. The best repair for cracked or worn fire-brick.
Circular 18-L and sample upon request.
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Is beyond all doubt the best book published on practical house heating. It contains the plans and essays on heating a house submitted in THE AMERICAN ARTISAN House Warming Competition for $300.00 prizes, and is in fact

An Encyclopedia of the Most Modern and Improved Practical Methods of Heating a House by Steam, Hot Water and Warm Air.

A Leading Western Newspaper says

"The volume is a well-bound and artistically printed and illustrated volume of nearly 300 pages, and contains some masterly essays on steam heating, hot water heating and warm air heating. Nearly every prominent authority in this field is quoted, and an application of principles and improvements suggested covers all technical details in a simplified and practical way. House plans and diagrams accompany the subject matter which deals specifically with radiation, combustion, ventilation, prices, estimates and the best and latest methods for placing, connecting and utilizing the apparatus adopted."

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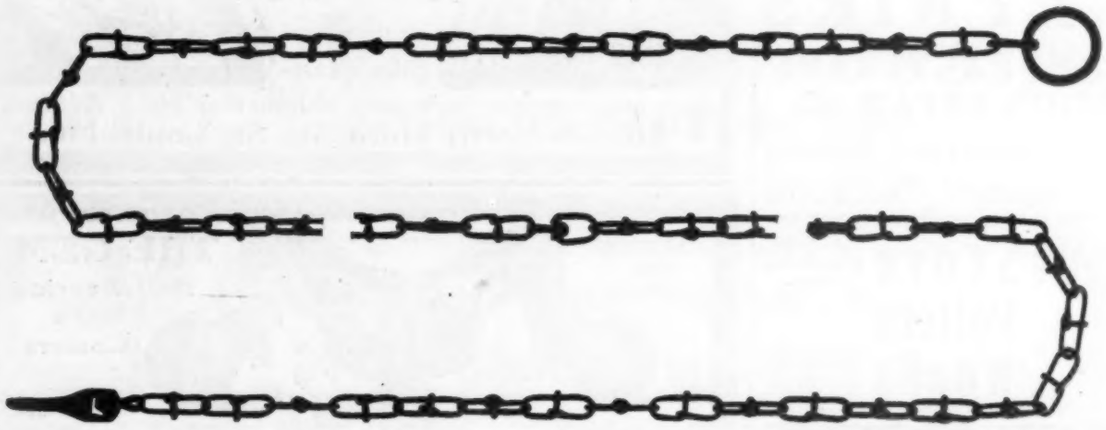
Are the most economical and durable material on the market for tethering cattle.



Made in five sizes and lengths from twenty feet to fifty feet to meet all requirements.

Equipped with our new patented adjusting appliances. No knots to tie, no kinking or breaking.

Put in a stock of "Eureka" Weldless Tie Out Chains for the spring demand.

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ONEIDA COMMUNITY, LTD.

"Dept. M" **Oneida, New York**

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For Stoves and Heaters

First-class in wood and Iron.

Vedder Pattern Works, Troy, N.Y.

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IRON & WOOD
STOVE PATTERNS
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DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS

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U·S· INFALLIBLE METAL POLISH

Highest Award:—Chicago World's Fair, 1893; Louisiana Purchase Exposition, St. Louis, Mo., 1904.

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FOR ALL KINDS OF METALS

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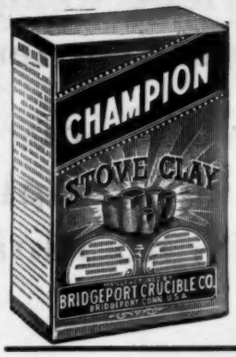

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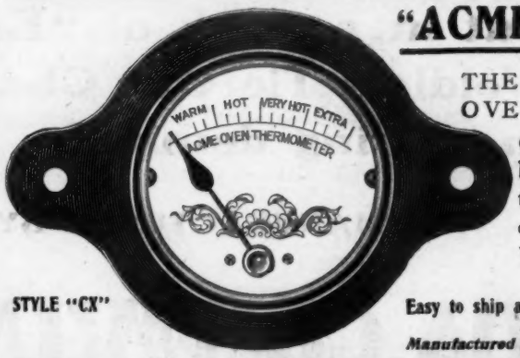
The only Stove Lining made of crucible materials.

Packed in 2½ lb., 6 lb. and 10 lb. pasteboard boxes.

Order it from your jobber.

The best and most refractory lining made.

Bridgeport Crucible Co., Bridgeport, Conn.



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"ACME" OVEN THERMOMETER

THE MOST RELIABLE OVEN THERMOMETER on the Market, as has been proved by some of the largest manufacturers of Stoves in the United States.

Easy to ship and nothing to get out of order.

Manufactured by

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BLACK KID STOVE POLISH

Everybody Agrees THAT Black Kid Stove Polish LEADS 'EM ALL!

It can be obtained from—every hardware jobber and stove repair firm in the land.

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BEST ON THE MARKET TO-DAY

PUT UP IN 5 LB. CANS. PRICE, 65 CENTS PER CAN.

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IS THE Best and Most Profit Bringing Damper

Plate stamped from nickeled steel, corrugated and looped, to add strength and to prevent warping. Handle rigidly clamped to stem, which is sharply pointed and can be easily put into pipe.

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SMOKE PIPE DAMPER.

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OVAL SMOKE PIPE DAMPER.

WE CLAIM BEST SHEET STEEL DAMPER MADE. WE WILL SEND SAMPLE FREE TO DOUBTERS. CHEAPEST DAMPER MADE. BEST AND EASIEST TO GET IN OR OUT.

We guarantee our prices against any sheet iron damper that in any way compares.

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"BIG FOUR ROUTE"

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A GREAT SELLER

You can materially increase your sales and profits by adding "J-M" ASBESTOS ROOFING. It is a ready seller because it:

1. *Has greater fire-resisting qualities than any other.*
2. *It is practically indestructible and is not affected by acids, gases or chemicals because made of a mineral product.*
3. *Cheaper than tin, iron, shingle or slate roofing.*
4. *Costs less per year than any other.*
5. *Is absolutely weatherproof.*
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7. *No skill necessary to apply it.*

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H. W. JOHNS-MANVILLE CO.

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If so you appreciate the need of a **first-class grinder. I have it—built in three sizes.** If you have power write me.

C. R. ZACHARIAS,
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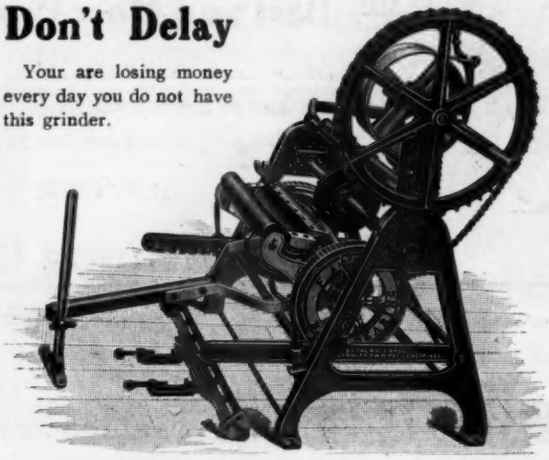
Don't Delay

Your are losing money every day you do not have this grinder.



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By its use anyone can sharpen a Lawnmower accurately in fifteen minutes. Takes all unevenness out of cutting parts, gives a perfect clearance, and is a pleasure to operate. Nothing like it on the market, and a big moneymaker.

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Is a Winner. Pleases Everybody

Sales last season were more than double those of the previous season. Dealers everywhere are enthusiastic over the sale of the Hustler. Orders should be placed at once to insure prompt delivery.

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Meet every service demanded of them. WHY?
Because they are built upon the correct principles. They have been hailed with delight by users, and the universal verdict is, I WANT NO OTHER. Ask your jobber or write us direct. A catalogue for the asking.

Eagle Cooperage Works, Sole Mfrs., **Circleville, O.**

Pressed Standing Steam Roofing

Painted or galvanized. Made from the best bloom sheets in our own factory.

Equipped with the latest improved machinery, we manufacture in large quantities, all kinds of metal roofing—including corrugated, "V" Crimped, etc., etc.

Full stock assorted sizes. Prompt shipment. Buy of the big manufacturer.

F. O. SCHOEDINGER, Dept. 2, 146 N. Third St. 148 **COLUMBUS, O.**

ALL STYLES of CORRUGATED ROOFINGS and SIDINGS

Black and Galvanized Sheet Iron or Steel

Send Us All Your Inquiries **Write for Catalog "D"**

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INSTANT SHIPMENTS

We Have Our Own
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Made of Galvanized Iron in Ten-Foot Lengths without a Cross Seam. Will not burst when full of Ice

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Satisfactory Inducements,
Favorable Freight Rates,
Good Labor Conditions,
Healthful Communities,

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YAZOO & MISSISSIPPI VALLEY R. R.

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are easily erected by any mechanic, at a saving of nearly 50% in labor and furring. The edges are formed on the plates and we furnish (without extra charge) the special tongs for tightening the joints. Only 4 nails to the plate. "Absolutely Dust-Proof."

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CORTRIGHT METAL SHINGLES

Time was when Tinners didn't get anything but plain tin roof work—now all up-to-date Tinners are finding it profitable to handle Cortwright Metal Shingles made by

CORTRIGHT METAL ROOFING CO., Philadelphia and Chicago

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Imitations Are Recommendations

We make the one-piece miter that others are trying to imitate. Made of special galvanized stock, true to size, shape and in all styles, single and double bead, inside or outside turn. No obstruction in slip joint.

Write for information.

Get the original.

J. E. Whitacre Mfg. Co.
ROCKFORD, ILL.

Inside Bead

Shingles that last

Walters Metal Shingles and Tile
Will last as long as the building they cover.
Rain, Rust and Fire Proof.
Write for catalog, samples and prices.

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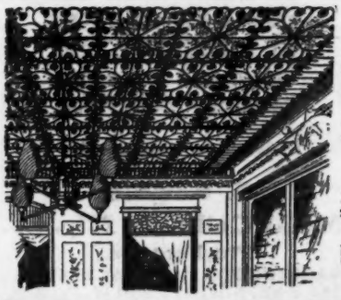
JERSEY CITY, N. J.



If you've never looked into the sale of Metal Ceilings—if you don't know about the possibilities and the profits, we'd like to send you our catalogue, and tell you how you can add a branch to your business that will bring trade all the year around.

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Illinois Roofing & Supply Co.
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All Grades Manufactured and Sold by

THE AULD & CONGER CO.
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ROOFERS' SUPPLIES, TOOLS, LIGHTNING SLATE DRESSER

WE MINE OUR OWN SLATE

Monarch Roofings

assure to dealers
Liberal Profits,
Enhanced Reputation,
Extended Business,
Satisfied Patronage,
and to consumer
Quality, Durability,
Economy, Satisfaction.

Send for Particulars

Stowell Manufacturing Co.

CHICAGO 47 Market St. — **JERSEY CITY** 461 Westlowe Ave.

Smith's Latest Improved Double Lock Nested Stove Pipe

Fig. 2

Fig. 2 Cut shows pipe as it is being closed.

Construction of which is very simple, practical and just as safe as riveted pipe. Can be cut when fractional joint is required, without the use of a rivet. Guaranteed to fit perfectly.

Write for free model, showing how it locks automatically without the use of tools of any kind.

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NEW PHILADELPHIA, OHIO

"Advertising doesn't jerk; it pulls. It begins very gently at first, but the pull is steady. It increases day by day and year by year, until it exerts an irresistible power."—John Wanamaker.

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Tools for Sheet Metals

INCLUDING

Tinners' and Roofers' Tools, Shears, Punches, Presses and Dies, Can-Making Machinery

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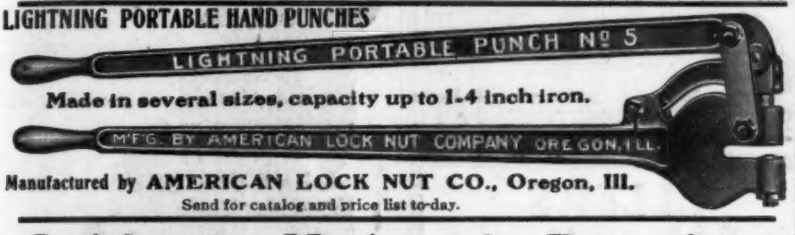

Made in several sizes, capacity up to 1-4 inch iron.

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No. 1 BENCH.

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Noiseless No Odor No Smoke

More Heat with Less Fuel
Greatest Range of Heating
3-12 lb. Coppers Indoors or on a Roof

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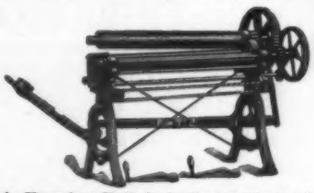

This Forming Roll is built in all standard sizes, with our Patented Opening Device, by means of which it is opened and closed in a few seconds. We build a complete line of Shears and Punches, all sizes, for hand or belt power.

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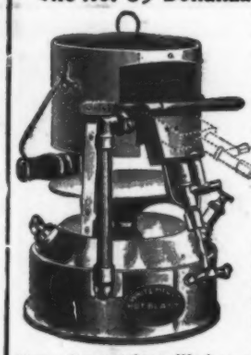

That is what we give you when buying a No. 39 Furnace for all around work. The tank is made of seamless drawn brass. We make many styles of Furnaces and Torches for kerosene as well as gasoline. Our catalog will give you full particulars. Order through any jobber, or send us $4.50; we will ship direct.

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No. 32. $3.25 Net.

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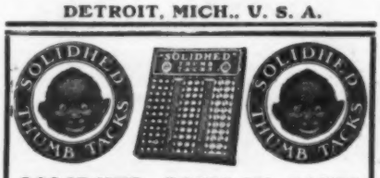

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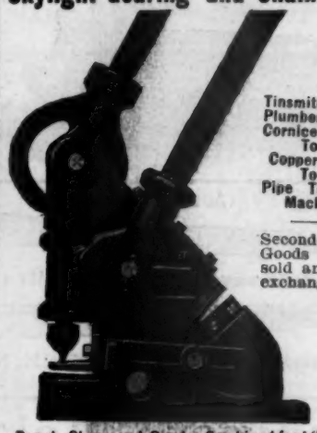

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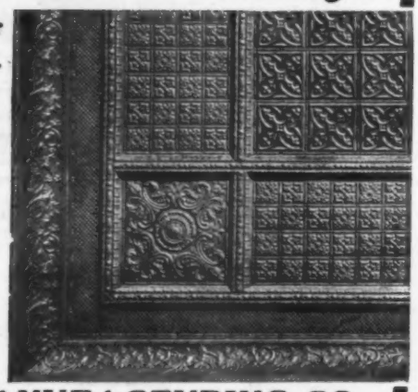

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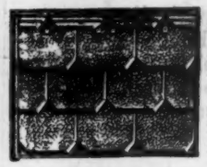

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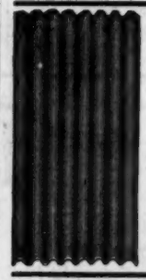

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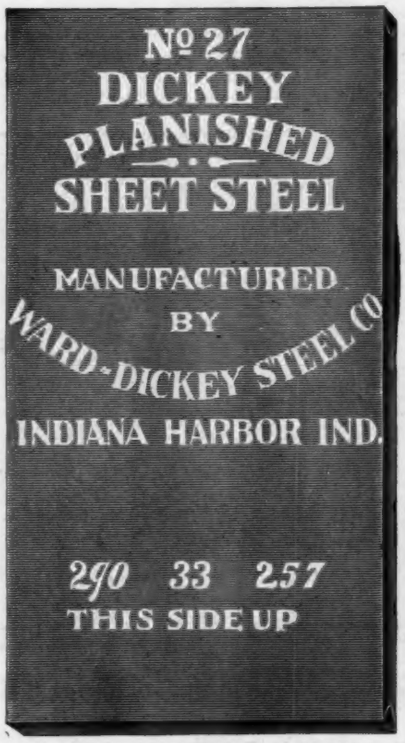

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Operates with ease whether full or empty.

Saves space and time.

Get our proposition if you are crowded.

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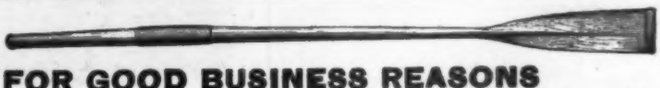

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by the best workmen to be the only way to close the end of an eave trough, as corrugations are Proof Against Frost.

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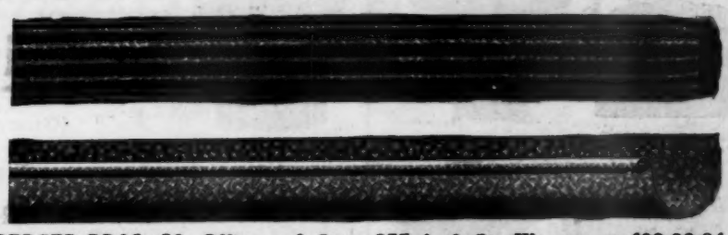
BERGER BROS. CO., Manufacturers of PIPE AND GUTTER, HEAVY GAUGES and COPPER A SPECIALTY

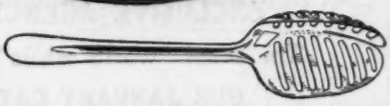


BERGER BROS. CO. Office and Store, 237 Arch St.; Warerooms, 100-02-04 Broad St.; Factory, 3114-16-18-20 N. 17th St., Philadelphia

Stay-In Flue Stoppers

Brass finished. Nicely decorated. Cannot be jarred or blown from flue hole. Guaranteed to be soot proof.

Perfection Cake Mixer



Made of No. 16 steel. It's one of the best articles on the market. Almost everybody thinks so.

STUBER & KUCK, Peoria, Ill.

Manufacturers of Pieced Tinware and all styles of Flour Sifters.

Strong
Light
Malleable Iron
Warranted

Dealers Should Appreciate.

The Excelsior Carpet Stretcher and Tack Hammer Combined

Is sold exclusively to the legitimate hardware trade—NOT to catalogue houses

It sells on sight at a moderate price; stretches the carpet evenly, 16 inches each time set; holds firmly while the operator, using the Combination Lever-Hammer, drives the tacks. Investigate now and be ready for spring trade.

Take no other. **Ask your jobber or write**

Richard W. Montross, Galien, Mich.

We have a Hardware Delivery Wagon that you can Depend Upon.

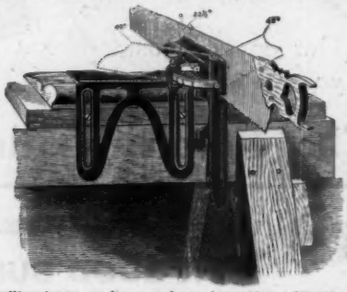
Body 20 in. from the ground; full width; regular heighth wheels, and yet will turn short.

Easy to Load and Unload.

Durability guaranteed.
Complete catalogue on request.
Mention this paper and address in full.

SYCAMORE WAGON WORKS
109 Edwards Street **SYCAMORE, ILL.**

ALWAYS READY FOR USE.
No. 159. MITRE BOX, SEAVEY'S IMPROVED



will cut any angle, any place at any time. Weighs only 2 pounds and retails for only $2.00. Ask your dealer or jobber for Seavey Mitre Boxes, or write us for Carpenters Green Book.

SMITH & HEMENWAY CO., 296 Broadway, N.Y.

REMOVAL NOTICE

On and after May 1st, we will remove to 108 and 110 Duane St., third building west side of Broadway, where larger and more commodious quarters have been secured, for the proper conduct of our large increase in business.

SMITH & HEMENWAY CO.
After May 1st, 108-110 Duane St.
NEW YORK CITY.

LEADS 'EM ALL!

The White Lily Washer is used so extensively because of its **High Speed** and **Simple Gearing**: — while it **Suds with little exertion.** :: ::

Dealers pronounce it a **Grand Seller**, and **Users** say they **could not do without it.**

Write for Our Exclusive Agency

WHITE LILY WASHER CO., DAVENPORT, IOWA

Write Us

and tell us if you are handling the

O.K.
Washing Machine

The washing machine that's advertised in all the leading farm journals.

We want to refer inquiries to you.

H. F. BRAMMER MFG. CO.
Dept. B, Davenport, Iowa

A Mere Glance

at this illustration does not suffice.
The true merit of the

"BB" Roller Gearing Rotary **Washer**

is understood and appreciated upon examination and trial.

It pays to investigate.

Benbow-Brammer Mfg. Co.
St. Louis, Missouri

WAVERLY WASHER

Before Selling **After Selling**

EXCLUSIVE AGENCIES

WAVERLY WOODENWARE WORKS :: **St. Joseph, Mo.**

PERFECTION OF SIMPLICITY

CHARACTERIZES

THE CHASSE Mouse Traps

Easy to Set
Easy to Bait
Easy to Sell

Works neatly and unfailingly.

Sure to allure and hold the victim.

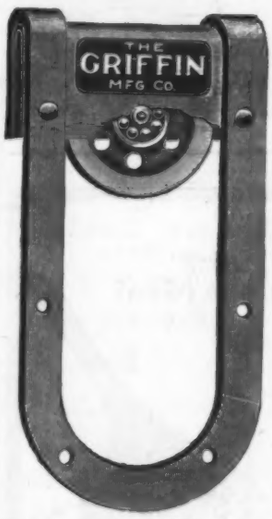
Patented U. S. and Canada '02.

MADE BY

CHASSE MANUFACTURING CO.

Main Office: NEW YORK, N. Y. **Factory:** MIDDLETOWN, N. Y.

GRIFFIN'S IMPROVED STEEL DOOR HANGERS



Hard Steel Axles

Roller Bearings

Entirely Anti-Friction

Frames Wrought Steel

Wheels Semi-Steel

Strap and T Hinges
Folding Shelf Brackets
Barn Door Track
Wrought Steel Butts

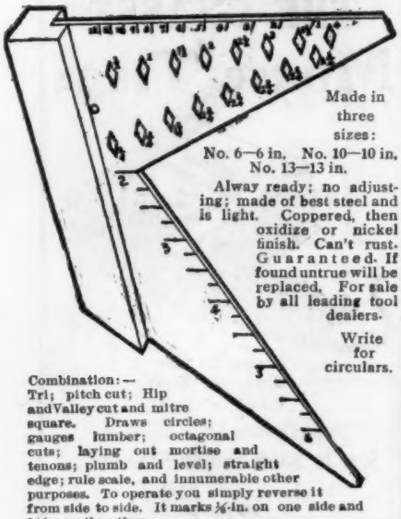
GET OUR COMPLETE CATALOG

GRIFFIN MFG. CO.
ERIE, PA.

"Nothing except the mint can make money without advertising."—Gladstone.

The New Universal Square

"NEW STYLE"



Made in three sizes: No. 6—6 in. No. 10—10 in. No. 13—13 in.

Alway ready; no adjusting; made of best steel and is light. Coppered, then oxidize or nickel finish. Can't rust. Guaranteed. If found untrue will be replaced. For sale by all leading tool dealers.

Write for circulars.

Combination:—Tri; pitch cut; Hip and Valley cut and mitre square. Draws circles; gauges lumber; octagonal cuts; laying out mortise and tenons; plumb and level; straight edge; rule scale, and innumerable other purposes. To operate you simply reverse it from side to side. It marks ⅛-in. on one side and ¼-in. on the other.

The Duby & Shinn Mfg. Co., Inc.
Office and Works: 34 E. 29th St.
NEW YORK CITY

Do you want to increase your business on White Lead?

Do you want to sell a White Lead which is not advertised by any Catalogue or Mail Order House?

Do you want to sell a White Lead that is BETTER than Strictly Pure White Lead?

Do you want to sell a White Lead which is put up in Steel Kegs?

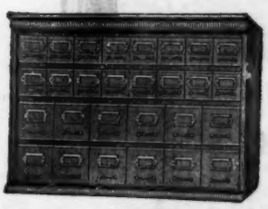
Do you want to be the only dealer in your city to handle an article of this kind?

If so, write at once to

Enterprise Paint Mfg. Co.

Van Buren and Peoria Streets, Chicago

Steel Hardware Shelf Boxes



Screw Cases, Etc.

Send for Circulars.

HELLER CO., Montclair, N. J.
or GEO. W. HEILAND, 213 Washington St., Chicago, Ill

Did you order that last lot of White Lead in

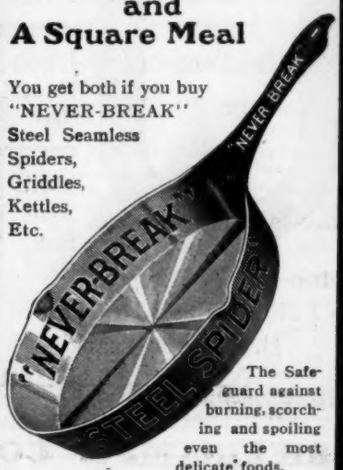
American Steel Lead Kegs?

If Not, Correct the Mistake next time.

American Can Company
New York Chicago San Francisco

A Square Deal and A Square Meal

You get both if you buy "NEVER-BREAK" Steel Seamless Spiders, Griddles, Kettles, Etc.



The Safeguard against burning, scorching and spoiling even the most delicate foods.

Write for Catalogue

The Avery Stamping Co.
CLEVELAND, OHIO
Mfrs. "Never-Break" Goods.

Vollkommer & Co.

Engineers and Contractors
1112 Empire Bldg. PITTSBURG, PA.

We Design and Completely Equip **Enameling Plants**
for Stamped Ware, Sign Work and Cast Iron Articles.

Stamping Plants

AGATE NICKEL-STEEL WARE

AGATE L&G Mfg. Co. NICKEL-STEEL-WARE

Is absolutely free from poisonous substance, is made by careful, experienced men, by a company founded in 1850. The first enameled ware and blue and white ware made in this country was made in our mills. We know how to make enameled ware safe and durable. We make it safe and durable because we are proud of the trade mark. Look for the blue label.

Lalance & Grosjean Mfg. Co.

CHICAGO, NEW YORK BOSTON

A GREAT HEAD

The head of the Longden Magnetic Hammer is the most unique ever devised.

It is strongly magnetic and will start a tack in the smallest corner.

Its claw will remove with ease the most stubborn tack.

It may be used as a screw-driver or box-opener.

It is made of the best materials and is attractively finished.

This is but one of the 400 trade stimulants that we make.

Let us send our catalogue.

Arcade Mfg. Co., Freeport, Ill.

GEROCK BROS. MFG. CO.

Sheet Metal Ornaments and Statuary

Detail Work a Specialty. Ask for Catalogue

1227 Manchester Ave., ST. LOUIS, MO.

The Curtis Hardware Co., Paonia, Colo., write:

"Kindly take out our advertisement for man as we have about 25 applications."

HOTCHKISS CLIPPERS

Standard Quality and Workmanship Guaranteed. Prompt Shipment. Prices Right.

Simple in Design. Elegant in Finish.

No. 350 B. B.

Send for Descriptive Catalogue and Prices.

EDWARD S. HOTCHKISS,
IRANISTAN AVE., BRIDGEPORT, CONN.

Clipper Lawn Mower Co., Dixon, Ill.

Manufacturers of Hand and Pony Mowers, also Marine Gasoline Engines from 2 to 8 horse power.

THE MOWER
That will kill all the weeds in your lawns.

If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders or roots, the grass will become thick and the weeds will disappear. The Clipper will do it. If you wish Clippers, send in your orders.

A Grade Better Than The Best

New Features.
Way ahead of them all.

Packed in Counter Display Boxes.
A fixed retail price.

Has eye to hold Trouser Hanger

"Pullman" Folding Coat Hangers

Prepare for the demand

Pullman Mfg. Co., Rochester, N. Y., U. S. A.

CUT THIS OUT

To the Publishers

The American Artisan and Hardware Record

69 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

NAME .....

ADDRESS .....

TOWN .....

STATE .....

"THIS STROP SHARPENS THE RAZOR"

It's in the Finish.

Dealers interested answer this "Ad" and you will receive a price list and samples of the Sealskin Swaty Strop.

SEALSKIN SWATY STROP CO., HAW BUILDING, OTTUMWA, IOWA

You'll Be Surprised

at the demand there is for a really GOOD Post-Hole Auger if you take up the sale of the

Iwan Post-Hole AND Well Auger,

the most largely sold and the most prominently advertised earth auger on the market; our advertising reaching all classes of consumers who have use for a post-hole auger.

It takes a ***Large Variety of Sizes*** to satisfy so many consumers. We make the augers in 3, 4, 5, 6, 7, 8, 9, 10, 12 and 14-inch sizes. 16-inch size in preparation.

ORDER YOUR SPRING SUPPLY

from your Jobber NOW, and include ***Iwan Drain Cleaners, Ditching Spades*** and ***Post-Hole Diggers.*** Send for list of complete line.

IWAN BROTHERS, Manufacturers of Hardware Specialties, ***Streator, Ill.***

WE'VE "GOT THE PUNCH"

It's the Rogers Belt Punch.

One-half actual size.

Thousands sold daily to **Threshermen, Sawmill Men, users** of **Belted Machinery, Harness Makers** and **Farmers** everywhere. Can be **carried in the vest pocket.**

ALWAYS READY

Punches any size hole, from one-sixteenth to three-eighths of an inch—does it quickly and nicely.

Write us for **Special Price.** A postal card will bring it. The **Biggest Seller** on the market. **Big Profit.**

Address **THE SATTLEY STACKER COMPANY**
1317 State Life Bldg., Indianapolis, Indiana

THE IDEAL EPWORTH

THE IDEAL EPWORTH

Salesman Wanted
TO SEE
The Ideal Epworth Generator
The Best Lighting System.
NONE BETTER, SAFER EASIER TO SELL
The only cheap high grade Generator on the market. Write us.
The Ideal Epworth Acetylene Co.
Waterloo, Iowa. Home Office, Johnstown, Pa.

THE IDEAL EPWORTH

Retailers!

Order a Sample Lot from your Jobber.

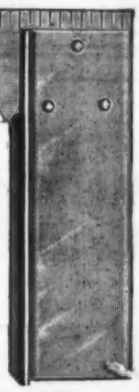
Try Square No. 5 with Gauge Edge, 6 inch only.

No. Try and Miter Square; 10 inches only.

No. 2 Miter Square 4½ in.; 6 in.; 8 in.

Fox's N. P. All Steel TOOLS

LIGHT, DURABLE and SQUARE INSIDE and OUT



Fox's Try Square No. 1 without Guage Edge; 3 in.; 4½ in.; 6 in.; 8 inch.; 10 in.

ALL ARE ACCURATE AND CAN BE SOLD AT A POPULAR PRICE

Magic Pattern Rule Will Lay Out Patterns

for any size and angle of elbows in three minutes' time. Can also be used as Straight-edge Rule, Circumference Rule and Trammel. Should be in every Tinshop. Will save its cost in a few weeks. Thousands are in use and every one giving excellent satisfaction.

Price, complete in a nice wooden box with Chart, $4.00 net cash.

LUFKIN RULE CO., Saginaw, Mich. (Mention THE AMERICAN ARTISAN.)

THE ECLIPSE AKRON SPIRIT LEVEL

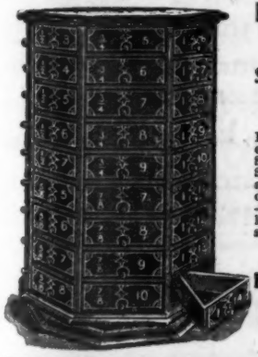
Sent to all dealers on approval. Write for our new illustrated catalogue and prices.

Manufactured by **THE BAKER-McMILLEN COMPANY, Akron, Ohio**

STANLEY RULE AND LEVEL CO.

IMPROVED CARPENTERS' TOOLS

Sold by All Hardware Dealers **NEW BRITAIN, CONN.**



Bolt and Screw Cases

SAVE TIME and MONEY

A necessity for Hardware Dealers, Machine Shops, Pattern Shops and in fact anyone who handles small articles—last indefinitely. Send for descriptive booklet.

AMERICAN BOLT & SCREW CASE CO.
Dayton, Ohio, U. S. A.

The Best Floor Spring Hinges are the best for you to sell. Cheap Hinges always come home to roost.

MATCHLESS Ball-Bearing Floor Spring Hinges are made to sell—*and to stay sold.*

The Ball-Bearings insure easy, noiseless motion,—the Spring gives the power, and never wears out or break

Don't hesitate to send for our prices!

Address Dept. A.

LAWSON MFG. CO. 40 Dearborn St., CHICAGO 101 Reade St., NEW YORK

H. A. Goold, Hiawatha, Kans., writes April 5, 1904: "You may discontinue my ad, as I have had so many answers that I was surprised. Your paper is well worth the subscription price, and I cannot see how any tinner wants to get along without it."

The SEASON FOR LIGHTNING

will soon be here and your customers will be asking for

LIGHTNING RODS

Our Rods are guaranteed to protect their buildings from damage by Lightning and that fact is advertised in the Farm Papers. That makes the consumer ask for "D. & S." Rods.

They know the merit of our Rods and they look for the trade mark, D&S and when they see it they know they will get a square deal.

Now is the time for the hardware dealer to get an agency. Drop us a card and we will send you full information.

Mention The American Artisan when writing.

DODD & STRUTHERS, Des Moines, Iowa

H. C. EVERT & CO.

Patent Lawyers

American and Foreign Patents

Designs, Caveats, Trade Marks, Labels and Copyrights

PITTSBURG, PA., March 26, 1906.

To All Whom It May Concern:

This is to certify that we have carefully examined patent No. 507,281, issued to A. W. Obermann, which patent is the property of the American Specialty Stamping Company, Incorporated, of Johnstown, Pa. We find the Kettle manufactured by the New England Enameling Company, of Middletown and Portland, Conn., is a DIRECT INFRINGEMENT upon all the claims that are fully covered and protected in the aforesaid patent, and we give due notice to all jobbers, dealers and agents that infringement proceedings will be commenced, not only against the manufacturers, but also suits will be brought against others infringing upon the rights of our clients. We further find that there has not even been an attempt to in any way change the construction as specified in the aforesaid patent, but that EVERY FEATURE OF THE PATENT HAS BEEN COPIED in each and every particular.

Trusting that all who are handling the infringed patent will discontinue to handle the same, we beg to remain,

Very respectfully,

H. C. EVERT & CO.

ELEVATORS

Improved Quick and Easy Rising Steam, Electric and Hand Power

Send for circulars

KIMBALL BROS. CO.

1031 Ninth St., COUNCIL BLUFFS, IA.

KIMBALL ELEVATOR CO., 129 Vincent St., CLEVELAND, O.

Rudy's Display Rack

Do you wish to increase your Hammock sales? The **Rudy Display Rack** will do the work.

Occupies only four (4) feet of floor space.

Holds from sixteen to twenty samples, as desired.

It will more than pay for itself by increased sales

Can be utilized by merchants who sell horse blankets during fall and winter months.

Will furnish extending arm when desired for blankets.

Can furnish in any height, but twelve foot will be sent when no other size is specified.

Patent Applied For.

Nicely finished and will be an improvement over having your samples hanging from ceiling or wire and darkening your store.

☞ Write for prices. For sale by jobbers. Made by

RUDY & GARTNER

PAOLA, KANSAS

BALL-BEARING

"GRAND RAPIDS"

ALL STEEL SASH PULLEYS

are the greatest selling goods on the market anywhere. We are the largest makers of sash pulleys in the world. The "GRAND RAPIDS" are the standard sash pulleys. We make nothing but sash pulleys, so, naturally our goods excel.

We own twenty-three patents on sash pulleys, therefore our goods are exclusive. Nearly all jobbers sell the "GRAND RAPIDS." Write us for free samples, catalogue and discount.

THE GRAND RAPIDS HARDWARE COMPANY,

Manufacturers

61 Pearl Street, GRAND RAPIDS, MICH.

YOUR CUSTOMERS WANT TO BUY

A PURE SOFT COPPER CABLE LIGHTNING ROD

You want to sell the best—MOORE BROS., Cable fills the bill, protection guaranteed, endorsed by Ins. Co., chemically pure copper—get the agency at once—a postal will bring you full particulars. :: Write for our catalogue, price list, etc.

MOORE BROS. LIGHTNING ROD CO.

GRAHAM MISSOURI

WE MANUFACTURE

LIGHTNING CONDUCTORS

WITH

Automatic Water Supply

FOR THE

GROUND RODS

(PATENTED APRIL 30, 1895)

The ground rod is the most important part of the rod. Sometimes the ground is perfectly dry, and the deeper the harder the ground is in some localities. By our invention you can be sure of two feet or more of water all the time in the rod and moist earth around the point in the ground. It is made of ½-inch pure copper tube. We want to furnish it to a responsible dealer in every town or city in the United States.

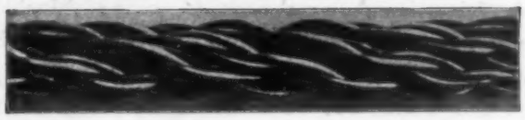
We manufacture Weather Vanes of all kinds. They can be used with or without lightning rods.

Write for Catalogue **40 Pages Free**

The Security Lightning Rod Co.

BURLINGTON, WIS.

Lightning Rods are a Protection



when you use our

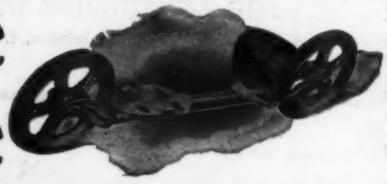
PURE COPPER CABLE

If it wasn't why do we give a $500.00 guarantee bond that the building will not get damaged from lightning if our Copper Cable is used. We have got the best and heaviest Cable and Fixtures on the market, and our prices are far below any other firm now making an inferior cable. Our Points are large, heavy bayonet, made of pure copper; we do not use the light shell point, so as to get our goods on the market cheap. There is money in the business for you, and the parties that get the agency for our goods are the ones that will make the money this year. We want an agency in every county, send for catalog and prices to

MAHER & SON, Preston, Ia.

The firm that cut down the price of Lightning Rods.

Automobile Cycle Skate



Our Newest Model. One Size Extension, 10 to 12 in.

Ball bearings, 5-in. rubber-tired wheels, metal parts sheet steel, finely nickel-plated. Retail $10 per pair; with 4-in. wheel, $7.50 per pair.

Every dealer in Hardware, Sporting Goods, etc., will find it profitable to sell our line of Cycle Skates, as they appeal to both young and old, being adapted for use in skating rinks or on smooth sidewalks. Write for catalogue and trade discounts.

CYCLE SKATE AND SPORTING GOODS COMPANY,

37 Park Street, New York

Holstein Pattern

Forty Years Making MILK CANS

Guernsey Pattern

SOME MILK CANS

will please part of the people part of the time, but the cans that please all the people all the time are

Sturges Milk Cans

Made in an independent factory and sold at Anti-Trust Prices. We make low priced cans and we make high priced cans, but, high or low, **we make nothing but a good can.**

Why? It is not necessary to go far to ascertain the reason for the universal acknowledgment that our cans are **the best.** The best quality steel plate, tinned and retinned in our own shops, most skillful and highest paid labor, combined with such patented improvements as the one piece Round Handle, Seamless Neck, Seamless Sanitary Cover, etc., tell the story.

25 CENTS

can be saved by the manufacturer in the cost of a milk can, if so inclined, in the item of solder alone, and in the method of using it. By long years of practice our expert employes have acquired the art of soldering an inside seam as smooth as glass. To do this they must use solder and plenty of it. It takes experts to make a good can and we have them.

Write us for **Catalog No. 75.**

STURGES & BURN MFG. CO.,
Harrison and Green Sts. Chicago.

The Gem Pattern

Forty Years Making MILK CANS

Omega Pattern

Push = =

Our Advertising Department is giving valuable service free to dealers who are pushing ENTERPRISE goods. We not only advertise to the public generally all over the world, but we otherwise help aggressive dealers especially, to increase sales of

ENTERPRISE

Meat Choppers, Food Choppers, Coffee Mills, Bone Mills, Meat Juice Extractors, etc.

If you want to sell MORE, drop a line now to our Advertising Manager. Tell him what lines you want to push and ask for help. It costs you nothing. It benefits us both. Get in the "push" and keep pushing

THE ENTERPRISE MFG. CO. OF PA
Philadelphia, U. S. A.

Goodell-Pratt Company
GREENFIELD, MASS. U.S.A.
HACK SAWS
FAMOUS FOR TEMPER AND CUT
HAND AND MACHINE BLADES OF ALL STANDARD LENGTHS AND WEIGHTS
Catalogue Free
G

Yale Locks

The need of locks may not be a credit to civilization but a Yale lock is a credit to him who uses it and to him *who sells it.*

The genuine Yale lock always has the trade mark

YALE

on the cylinder as shown above. That name is a guarantee of quality in material and workmanship as well as of the latest ideas in lock construction.

Hardware dealers should write for our No. 18 Catalog which lists our more active goods.

Yale & Towne Mfg. Co.
9 Murray St., New York
Chicago Office: 90 Lake Street

Gillette Safety Razor

NO HONING NO STROPPING

The Most Wonderful Selling Razor in the World

IT PLEASES EVERY CUSTOMER, WHO, IN TURN, BRINGS A NEW CUSTOMER.

"THE GILLETTE" sales are permanent, it turns orders to money and profits.

"THE GILLETTE" blade is of fine, flexible, wafer steel that shaves. 20 to 40 quick and comfortable shaves from each blade.

12 Blades, 24 Keen Edges

Triple silver-plated set with 12 blades,	$ 5.00
Quadruple gold-plated set with 12 blades,	10.00
Quadruple gold-plated set with 12 blades and monogram,	12.00
Standard combination set with shaving brush and soap in triple silver-plated holders,	7.50
Other combination sets in silver and gold up to	50.00

Standard packages of 10 blades with 20 sharp edges, for sale by all dealers, at the uniform price of 50 cents.

No Blades Exchanged or Resharpened

We supply our dealers liberally with signs, booklets and hangers. Write for our uniform discounts and facts.

GILLETTE SALES COMPANY
TIMES BLDG., NEW YORK CITY

Energy is Strength
Energy is Hope
Energy is Life

Put it in Your Advertising

Persistency is Might
Persistency is Progress
Persistency is Success

Add it to Your Advertising

Hitch Your Whiskers to a "STAR" SAFETY RAZOR

and they are immediately and painlessly removed. No distortion of features nor wrecking of the soul marks the operation.

The 3 Star Blade

is exceedingly keen and imparts only keenness to your feelings. An acquaintance with a Star Safety Razor is never dropped.

Highest Award Wherever Exhibited:
Paris, 1900 Buffalo, 1901 St. Louis, 1904 Portland, 1905

Write for Quotations and Secure an Agency.

KAMPFE BROTHERS,
Manufacturers, 8-12 Reade Street, NEW YORK

Seed Time

Sow Impressions Now

With your hardware store thronged with folks buying seeds and things to plant them with—are you improving the chance to sow impressions from which new business will grow later on?

Will all who come to you for plows and spades and rakes and vegetable and flower seeds leave disposed to return for other things they'll need days, weeks or months from now?

In other words, have you arranged, where they'll be seen, the things at the prices that enough people want hard enough to come to a store FOR them?

Such goods and such prices are in **Our April Catalogue** (No. MC 571). **Shall we send you that "seed" of more trade?**

BUTLER BROTHERS

Wholesalers of General Merchandise
—By Catalogue Only—

New York Chicago St. Louis

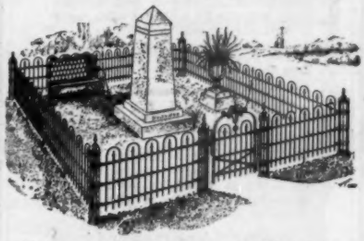
STEWART IRON FENCE

Cheaper than Wood and Last a Lifetime

THE BEST MADE

No Doubt About It **Highest Award World's Fair**

Many Designs for Residences, Churches School Houses, Etc.



Cemetery Lot Enclosures a Specialty

Artistic Entrance Gates **Park & Cemetery Arches**

Park and Cemetery Fence and Entrances a Specialty

Over 100 Artistic Designs

Agents Wanted

Hardware Dealers Make Big Profits Selling Stewarts FAMOUS IRON FENCE

WRITE FOR CATALOGUE No. 23 TO-DAY

Iron Reservoir Vases, Lawn Settees, Iron Guards, Hitch Posts, Fountains, Etc.

THE STEWART IRON WORKS COMPANY
CINCINNATI, OHIO, U.S.A.
"The World's Greatest Iron Fence Works"

C. N. HOOPER, Dubuque, Iowa.

VITREOUS ENAMELING

TECHNOLOGIST

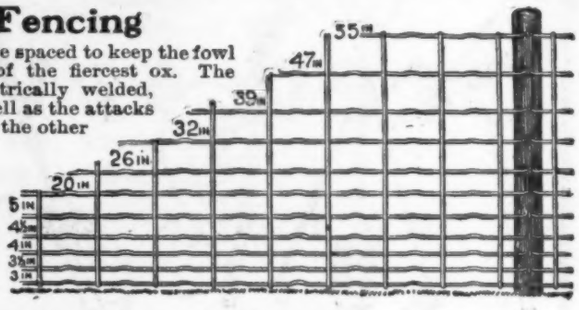
Designs, builds and starts new plants. Improves quality and reduces the costs in those already established.

Rely on yourself—invest your money in YOUR OWN business—advertise.

"Pittsburgh Perfect" Fences

For Field, Farm and Hog Fencing

are made to meet all the demands they are subject to. They are spaced to keep the fowl within their limits and are calculated to stand the strength of the fiercest ox. The wires and rods are of the best steel the market affords, electrically welded, and are galvanized so that they can resist the elements as well as the attacks of the curbed in animals. They are just as meritorious as all the other



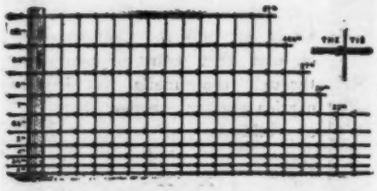
"Pittsburgh Perfect" Brands

of Wire Rods, Annealed, Bright and Galvanized Smooth Wire, Barb Wire, Twisted Cable Wire, Fence Staples, Wire Nails, Steel Hoops, Bands and Cotton Ties. Dealers save money on goods.

MANUFACTURED BY

The Pittsburgh Steel Co., Pittsburgh, Pa.

The Fence That Suits



Your Customer

Is the one for you to handle

Woven Field Fencing

Both Single and Double Strand.

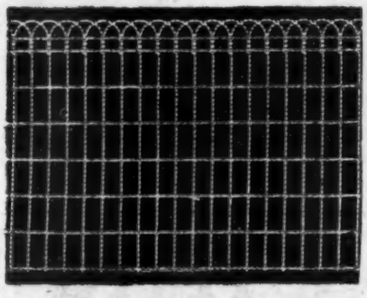
JUMBO POULTRY turns everything.
Lighter Poultry for less money of Various Weights.

Lawn and Cemetery Fence, Barb Wire, etc.

SEND FOR CATALOGUE.

THE DENNING WIRE & FENCE CO.
CEDAR RAPIDS, - IOWA

"Fences that Sell"



This is a good one; we have others.
Many dealers handling.
We want more.

We also manufacture Field Fence, Wire Gates.

CYCLONE FENCE CO.
Dept. 10 Waukegan, Ill.

HIGH-GRADE BUGGIES

$47.50 AND UP. Dealers Only.

Strictly First-Class Material

JAMES & MEYER BUGGY CO.
Write for Catalog and Prices. Lawrenceburg, Ind.

"Yankee" Tools

ARE THE NEWEST, CLEVEREST AND QUICKEST SELLING,

and are without equal in quality or efficiency in practical use.

No. 10 and 11—Ratchet, Right and Left Hand and Rigid

No. 15—Rachet, With Finger Turn on Blade

No. 30 and 31—Spiral Ratchet, Right and Left Hand and Rigid

No. 40-41-44—Automatic Drill

No. 50—Reciprocating Drill for Wood or Metals

Send for "Yankee" Tool Book

North Bros. Mfg. Co., Philadelphia

SPERRY'S STEAM KETTLES

Made from very thick metal, without Stay Bolts, joint packed in such a manner as to never need repacking. A little higher priced than some, but they are safe and tight.

D. R. SPERRY & CO. HOLLOW-WARE FOUNDERS **Batavia, Ill.**

We Do Not Fear

to introduce a hardware specialty when the margin of profit justifies, and

We Do Not Hesitate

to lend any possible assistance to the retailer in the final disposition of his purchase. We handle anything in the staple hardware line.

Honor is our guiding star. If our salesman does not call, write us.

Paxton & Gallagher Co., Omaha, Neb.

JOBBERS TO RETAIL TRADE ONLY

WAITING FOR YOU

If you have never handled any of our special Farm and Garden Tools, you have no idea how well they sell.

Lots of new trade is to be had for them —it is really waiting for you to simply supply the demand.

They are practical tools especially designed to do particular kinds of work, and their usefulness is strongly evident to prospective buyers at first sight.

Your tool trade can be considerably increased if you add our specials to your regular staple Forks, Hoes, Rakes, etc.

Ask us to write you fully and send you our large illustrated catalog *of 77 Special Tools.*

AMERICAN FORK & HOE CO.
CLEVELAND, OHIO.

An advertisement is a platform from which the manufacturer or jobber can address more dealers than could be crowded into the largest hall in the world.

x x

It is a long distance telephone with multiplex connections *ad infinitum* by which he can talk to thousands of dealers.

x x

It is not only the cheapest circular that can be sent through the mails but it carries greater prestige than any other.

x x

It is a signboard placed where thousands of retailers are congregated.

x x

It is a wireless telegram to the trade.

x x

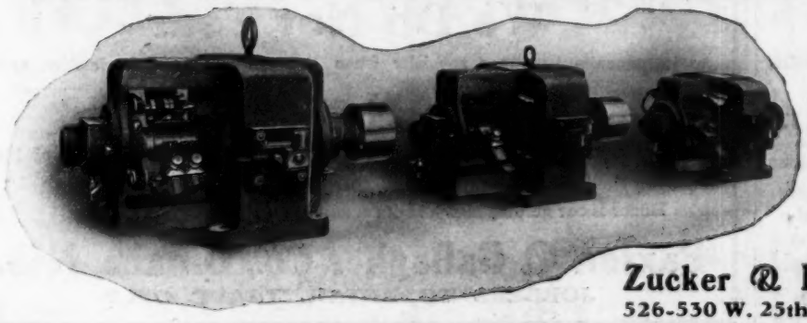
It is the electric button which starts the complex system of modern business, causing the retailer to seek the jobber and the jobber the manufacturer.

x x

It is a match which when touched to a stock clears it out.

x x

ELECTRO PLATING OUTFITS



Low Voltage Dynamos and Direct Connected Sets
ALL SIZES
We manufacture everything required for polishing and plating.

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Zucker & Levett & Loeb Co.
526-530 W. 25th Street, NEW YORK, U.S.A.

THE VICTOR

Most assuredly

A WINNER

Strong and **Durable,** and the only one that lasts "to the finish," the **"Victor Coal Hod"** has no equal.

We make other kinds of tin and galvanized ware, including the popular Victor Water Pails and Wash Tubs.

THE VICTOR STAMPING CO., Broadway, Loveland, Ohio

A Few Reasons Why You Should Have

The Herrick Refrigerator

WATERLOO, IOWA

They are **built on "honor," best workmanship, material** and **finish Solid oak cases,** even in the smallest sizes. **Highest quality** throughout, at **reasonable prices.** All walls and doors **guaranteed packed** with **solid Mineral Wool** insulation to cover **double** the usual **thickness. Saves ice. Economical** in **operation.** Has an absolute **DRY AIR SYSTEM,** of Refrigeration of **Highest MERIT. Perfect Circulation. No dampness** or metal linings to breed and hold disease germs and foul odors. You get **value received** when you purchase the **HERRICK.** Odors and gases from foods immediately removed from interior by **superior system. Seamless pans. Non-rusting. No leaking. Large storage capacity. Removable trap** and drain pipe. Sanitary in actual operation as well as in construction. **No mould—No taint. Durability.** Latest improvements. Built to last a lifetime.

High Grade Refrigerators at prices which will interest you

WRITE FOR CATALOG. Do not delay if you wish the best.

HERRICK REFRIGERATOR CO.

Factory, WATERLOO, IOWA

Plumbing,

Drainage, Water Supply and Hot Water Fitting.

By John Smeaton, C. E.

CONTENTS:

Chapter 1. Introduction. 2. Drainage. 3. Danger from city wells. 4. External plumbing. 5. Internal plumbing and fitting. 6. Sanitary plumbing. 7. Water services and tapping of mains under pressure. 8. Water supply. 9. Ornamental leadwork. 10. Heating. 11. Hot water work. Index.

236 pages, 217 illustrations, 8vo., cloth.

Price, $3.00.

For Sale By.....

DANIEL STERN,
59 Dearborn St.,
Chicago.

Make More Money

Rural Routes are going in all around you. New boxes are needed on old routes. You should get this business. You *can* get it with

Bates-Hawley Patent **SIGNAL MAIL BOX**

It is the original box for Rural Routes with special endorsements of Postmaster General. The best made, the best liked, the best advertised and the easiest sold.

SIGNAL MAIL BOX CO.

106, Benton St., JOLIET, ILLINOIS.

HOMESEEKERS EXCURSIONS Via NORFOLK & WESTERN RAILWAY

On FIRST and THIRD TUESDAYS in each month to VIRGINIA

For all information as to Rates and Tickets and for LAND PAMPHLETS and descriptive matter, address **ALLEN HULL, D. P. Agt., Columbus, Ohio**

SCREEN DOORS
WINDOW SCREENS

For several years the following lines of Screen Goods have been considered "Standard:"—

Wabash **Phillips**
Owosso **Philadelphia**
Porter **Queen Anne**

The excellence of these lines has been so uniform that only a slight difference in price would swing an order from one factory to another, while other lines have had to be sold at 5 to 10% less.

These goods are as reliable and satisfactory as ever. True, they are higher in price this year, but the advance is chiefly on account of the advance in lumber.

Mr. Retailer—Please call up your lumber dealer and ask him if the Yellow and Norway Pine that he bought a year ago for $24.00 does not now cost him $36.00—50% advance!

"Butt in" lines are always sold cheaper than "Standard" goods, but prices are always as high as the goods will bring. No line is sold for a cent less than the manufacturer's own estimate of the value of his product as compared with "Standard" goods.

The capacity of our factories, operated 10 hours a day for 9 months exceeds the entire U. S. and foreign demand, this or any other year.

The fact that these concerns survived the fierce competition indicates that they made better goods at a less cost than the 44 that quit. They understand their business and know what goods cost.

While these factories represent enormous capacity, they have prepared for only an ordinary trade, and sales already exceed 65% of last year's sales.

If you desire "Standard" goods and prompt deliveries, your order should now be in the hands of the jobber.

Most of the Distribution Cars have now gone forward. A few second cars go this month.

THE CONTINENTAL COMPANY
Penobscot Building : : : : DETROIT

REED'S Flintstone Enameled Steel Ware

Has Trebled Its Sales

within a year. Its sale has been so phenomenal because it is just what every thrifty housewife wants and needs.

Flintstone is light, artistic, seamless, sanitary and durable.

It is the best moderate priced Enameled Steel Ware on the market.

The chemicals used in its manufacture are imported from Germany and Austria in a raw state, which gives Flintstone the advantage over imported wares.

Ten Years' Guarantee

is given with every piece of Flintstone. It is such an attractive seller that one pleased customer begets another.

If you "want to be near the bandwagon" to hear the music—the jingle of profits from Flintstone, write to-day to

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Tools and Cutlery

There is NOTHING in doing a large business if a good sized NET PROFIT at the end of the year does not result.

KEEN KUTTER

Advertising Puts Trade Back Into Its Regular Channels

Those who sell a complete line of Keen Kutter goods are making big NET PROFITS because our enormous advertising operations which reach FORTY MILLION people make Keen Kutter Tools and Cutlery

Good Sellers

and every tool sold is an advertisement in itself for the entire line.

We have made into Keen Kutter "Salesmen" the best and strongest publications in this country, which are telling the consumer about Keen Kutter Goods as persistently as the ocean waves. If you carry a complete line of Keen Kutter Goods these silent salesmen also belong to you.

You Can Go Like

If Your Shipments are Prompt and Reliable

LEE-GLASS-ANDREESEN HDW. CO.
Jobbers in Hardware OMAHA

THE BEST IS THE KIND TO SELL

At the annual championship tournament of the Indoor .22 Caliber Rifle League of the United States, held at Grand Rapids, Mich., February 12-17, 1906,

PETERS CARTRIDGES

ESTABLISHED THE WORLD'S RECORD.

2481 OUT OF A POSSIBLE MADE BY W. A. TEWES **2500**

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At Zettler Rifle Club Open Tournament, New York, March 10-17, 1906, 100-Shot Match won by Arthur Hubalek, score 2468. Seven of the first ten prize winners used PETERS .22 SHORT CARTRIDGES.
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80% OF THE CONTESTANTS IN THESE MATCHES USED PETERS CARTRIDGES—THE SEMI-SMOKELESS KIND

There is as much profit in Peters Ammunition as in other makes—and a lot more satisfaction. This is not mere "talk," but actual fact.

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The Best on the Market today.

They Run Smoothly, Wear Well and Seldom Need Sharpening.

QUALITY is the one essential in a saw and that WE GIVE YOU.

WRITE FOR OUR COMPLETE CATALOGUE

Quality Tells

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STEVENS FIREARMS

are

FIRST-RATE SELLERS

because they strongly appeal to the buying public.

STEVENS QUALITY—PRICE

and the aggressive ADVERTISING behind our popular make, are "REASONS WHY."

All Jobbers handle the STEVENS, INSIST ON OUR MAKE. THERE ARE NO SUBSTITUTES.

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McClure's Roofing Tin

Better values for your money in roofing tin than you've ever had before. **Let us prove it.** Write for samples and prices.

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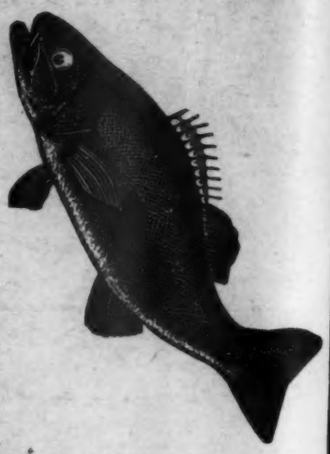
Hooks, Flies, Trolls, Spinners, Phantoms, Reels, Furnished Lines, Everything in Fishing Tackle.



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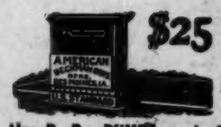
AKRON, OHIO, U. S. A.



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Beckman Bros., Des Moines, Ia.

WE WANT THE DEALERS TRADE.
Write us.

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Tinners Find Employment By advertising and using **THE POWERS AUTOMATIC CHIMNEY TOPS**

They make chimneys draw, give Tinners employment making stocks, and give the dealers profit

Sold by Hardware Jobbers and Dealers.
Made only by **POWERS BROS.** STREATOR, ILL.
This cut free to dealers.

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The strongest, most durable and cheapest CUT-OFF on the market.
The only single cut-off made to fit CORRUGATED and Plain pipe and which can be used without extra pipe or elbows.
For sale by all leading jobbers.
Patent applied for.
Manufactured only by
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The "GLOBE" Ventilator

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For Perfectly Ventilating Schools, Churches, Halls, Mills, Factories and Audience Rooms of Every Character.

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This is the Saw

that pays. It pays you to sell them—pays your customer to buy them. **THE SAW OF QUALITY** Made on honor. Every detail perfect.

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